220 TRIATHLON

SWIM. BIKE. RUN. *FASTER!*

GEAR ON TEST ▸ WOMEN'S BIKES • BIKE JERSEYS

SMASH YOUR GOAL

With 11 simple habits

HOW TO BE FEARLESS WITH LOUISE MINCHIN

The BIG TRI-SUIT BUYER'S GUIDE

PLUS

- TRAINING IN HOT WEATHER
- RACING XTERRA OFF-ROAD TRI
- 4 HIGH-PROTEIN RECIPES

ourmedia
No. 418 £5.99
July 2023

VISIT…

LANZAROTE
Caliente.COM

LENGE
GRAN CANARIA
lon!
ANFI
Club La Santa
Maisel's Weisse ALKOHOLFREI
HUUB
cervélo
scanAutomobile
CHALLENGE
60
HUUB

Cabildo de
Gran Canaria

YOUR SPEED YOUR SUIT

UNDER OR OVER 22 MPH, YOUR AVERAGE SPEED MATTERS TO US

Our Wetsuits and Tri Suits are designed to work on the World's best athletes but also work for you.

Our latest Anemoi Tri Suit is YOUR fastest Tri Suit, period. We know what fabric does at different speeds with over 500 fabric tests and hundreds of tunnel hours. We understand a fabric's 'drag crisis', and we understand fabrics help trip the boundary layer of your body at differing speeds and speed variations.

The suit for a World record holder will do you no good because it's not your speed and consequently won't be your gain. Simple really, if fabrics perform within tight speed ranges, then choose the one for you. That's why HUUB, again, are the first company not to recommend one design fits all for aerodynamic performance in triathlon. We want everyone in our suit to go faster...

You Mr Brownlee, you Ms Haug, you Mrs Matthews, you Mr Peasgood, and you Mr Bishop from Derby.

I guess what we are trying to say is...

IT'S WHAT YOU DON'T SEE THAT MAKES YOU FASTER.

CONTENTS

START

P8 THE BIG PIC
P13 WHY I TRI
P14 HOTTEST NEW GEAR
P17 STATE OF PLAY
P20 PRO Q&A

KIT ZONE

P36 KIT ZONE
P43 TRI-SUITS
P52 MEN'S BIKE JERSEYS
P54 WOMEN'S BIKE TEST

TRAINING

P62 MASTERCLASS
P67 NUTRITION
P70 Q&AS
P74 WOMEN'S TRAINING

REGULARS

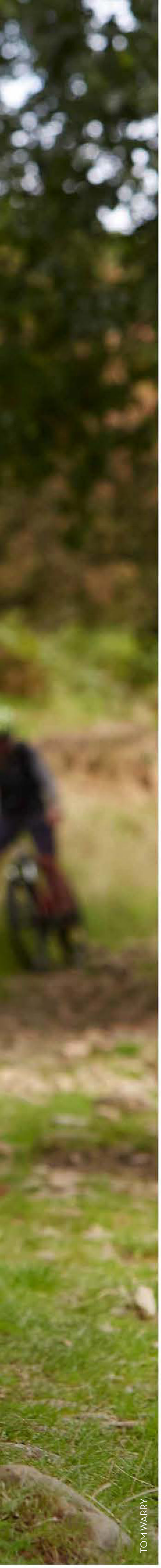
P18 FAO 220
P22 SUBSCRIBE
P76 HOW WAS IT FOR YOU?
P82 RACE CALENDAR
P90 WEEKEND WARRIOR

SUBSCRIPTION OFFER
SAVE 30%
WHEN YOU SUBSCRIBE PLUS RECEIVE
HUUB BROWNLEE GOGGLES
>> SEE PAGE 22

24

EXCLUSIVE INTERVIEW

TV presenter and triathlete Louise Minchin on the lessons she's learnt from a host of fearless sportswomen


TOM WARRY

IN THIS ISSUE

36
KIT ZONE

This month we test aero helmets, swimming headphones and the new Garmin Forerunner 965

TRIATHLON
LOUISE MINCHIN

ON THE COVER

DISCOVER THE SECRET POWER OF HABITS

31 Hacking your habits can help you reach new heights in training and on race day. Here's how

BUYER'S GUIDE TO TRI-SUITS

43 We test a range of tri-suits across all budgets so you can find the right one for you

FOUR PROTEIN-PACKED MEALS

67 You don't need to live on chicken and eggs to get your protein fix. Here are four alternatives

RACE REPORT: XTERRA UK

76 We line up in Weston Park as Xterra makes its tri return to UK shores, but it doesn't quite go to plan...

DAN SEEX

OSB EVENTS

XTERRA UK

STEVE SAYERS

Mallorca
Illes Balears

Palma Marathon
MALLORCA

15·10·2023

Marathon / Half Marathon / 9 km

Follow the Sun

Ajuntament de Palma
IME
Financiado por la Unión Europea
NextGenerationEU
MINISTERIO DE INDUSTRIA, COMERCIO Y TURISMO
Plan de Recuperación, Transformación y Resiliencia
G O I B CONSELLERIA MODEL ECONÒMIC, TURISME I TREBALL
AETIB AGÈNCIA D'ESTRATÈGIA TURÍSTICA ILLES BALEARS

Fundació Mallorca Turisme
Consell de Mallorca
infisport
361°
FNG FORNES LOGISTICS
Organizer
kumulus

palmamarathonmallorca.com

SPORTOGRAF

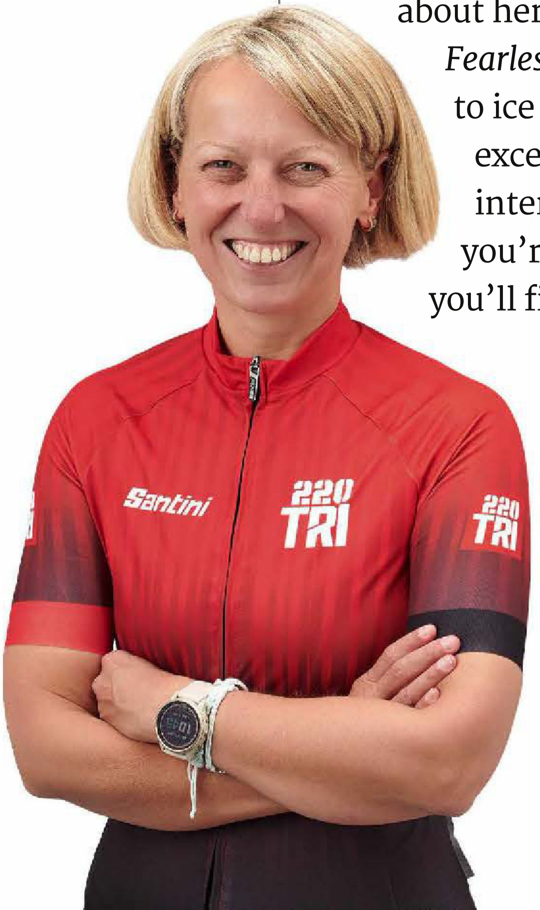
Louise Minchin, seen here finishing Norseman in 2019, talked to *220* about her latest book, *Fearless*, which saw her take on 16 epic adventures with 16 incredible women.

FROM THE EDITOR...

What scares you? I'm not talking spiders or snakes here, but the kind of activities and elements of sport that scare you. For some it could be swimming in open water, for others the fear of trying something new – and if we're honest, we're all scared of something! In this issue, we were lucky enough to chat to Louise Minchin, triathlete and TV presenter, about her adventures with 16 amazing women for her new book, *Fearless*. In it, she explores different activities – from triathlon to ice diving – with women who have followed their passions to excel in their sports. I'd urge you to read the book (and our interview on p24!) as, if nothing else, it will make you realise you're not alone and that maybe, in trying something new, you'll find you're a little stronger than you thought.

Helen

HELEN WEBSTER, EDITOR



NEVER MISS A COPY OF 220!

EXCLUSIVE OFFER WITH FREE HOME DELIVERY

We want to make it as easy as possible for our readers to get their copy of 220 *Triathlon* magazine, so why not take out a subscription? Turn to p22 to find out how to get the magazine delivered to your door every month. Plus, sign up today and you'll receive a bonus pair of Huub Brownlee goggles!

START

DIVE INTO THE WORLD OF TRI

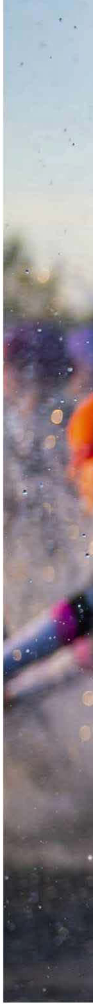
THE BIG PIC

The world's highest triathlon, the **HimalayanXtri Xtreme Triathlon Nepal**, took place on 6 May and saw competitors, plus support crew, complete a 3.8km swim in the dark, at 4am; a 175km bike entirely over tarmac; and a 43km mountain-trail run to again finish in the dark. The highest point is 4,000m and the overall elevation totals 6,500m. Pro triathlete Petr Vabrousek (pictured), who won with a time of 16:51:26, was one of only five athletes to make it to the 4,000m 'viewpoint' finish line.

STEVE ASHWORTH

ACTIV'IMAGES

India Lee (GBR) in attack mode at **The Championship**, Samorin, Slovak, on 21 May. Lee's strong 90km bike leg saw her enter T2 alongside Spain's Sara Perez Sala. But within the first 1km of the 21.1km run, Lee had pulled out a 20sec gap, a lead she continued to extend to break the course record in 3:58:29.



The age-group-only **Ironman 70.3 Alcudia-Mallorca** includes a one-loop, 90 km bike course that takes athletes up to the Lluc Sanctuary and through some of the island's inland towns before heading back to Port d'Alcúdia. This year's race, on 13 May, was won by Nick Thijs (1:15:24) and Barbora Besperát (1:21:29).

PABLO BLAZQUEZ DOMINGUEZ/GETTY IMAGES

JACOB KUPFERMAN/GETTY IMAGES

On 6 May, more than 1,600 athletes took to the start line at the **Ironman 70.3 North American Championship** in St. George, Utah. The race was won by the USA's Sam Long (3:43:05) and the RSA's Jeanni Metzler (4:16:42).

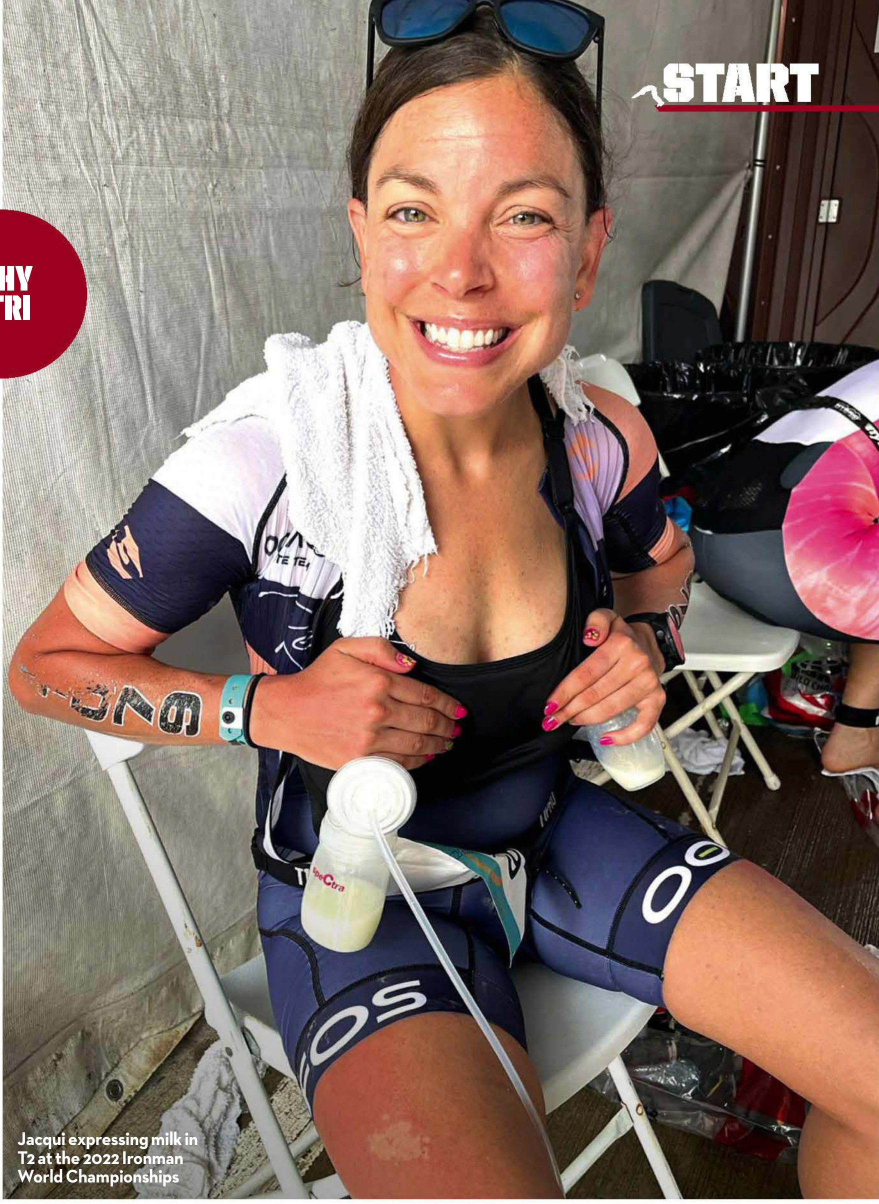
NOBUO YANO/GETTY IMAGES

GB's Sophie Coldwell being put to the test at the **World Triathlon Yokohama** event on 13 May. The 28-year-old is having a brilliant 2023 season so far, having won silver in the first round in Abu Dhabi and collecting her first WTCS gold medal here in Japan.

AS WORN BY
KRISTAN BLUMMENFELT
surpas
SHOP NOW
surpas
GARMIN

"RACING KONA AND PUMPING MADE ME REALLY PROUD"

Jacqui Giuliano raced Kona just three months postpartum, stopping to express in T1 and T2. She tells us her motivation for racing as a new mum...



Jacqui expressing milk in T2 at the 2022 Ironman World Championships

JACQUI GIULIANO

Jacqui Giuliano (35-39 age-group) is based in Illinois, in the U.S. and is a wife, mum of twin boys, and a 16-time Ironman finisher. After giving birth to her twin boys in July 2022, Jacqui worked with her medical team to make it to the start line of the 2022 Ironman World Championship just three months postpartum.

I started my endurance sports career as a runner. My parents were both runners and traveled the U.S. to do marathons, it made me want to be an athlete. I ran collegiately but was frequently injured and used biking and swimming to cross-train. I met my husband through sport and he coached me for my first half-Ironman over a decade ago, the Buffalo Springs 70.3 in Texas.

I missed the Kona slot in my age-group by one position at that race. It lit a fire in me – I knew I wanted to race Kona one day. Since then, I've done 16 Ironmans, but my most memorable one is Kona 2022 because I raced it just three months after giving birth to my twin boys, Jackson and Jacob.

I asked my pelvic floor physical therapist if my idea to race it was crazy. I wanted to race, but being healthy for my boys was the most important thing. Luckily they said it was definitely doable. I also had a friend who raced a few months after having one of her kids – she was an invaluable resource for me during my decision-making process.

My longest Kona training run pre-birth was 17 miles at 17 weeks pregnant. While pregnant, I would ride my bike aerobically with one harder ride a week. I stopped swimming early on because my lower back and legs couldn't handle the weight of my front.

> *"I finished in 11:34, pumping for 30mins in T1 & T2"*

I returned to activity about two-and-a-half weeks postpartum. I power-walked and rode my Peloton, which has a more padded saddle than my tri bike. I felt no rush to return to training and enjoyed the process. I was lucky that my parents helped watch the twins so I could fit in training. My longest ride postpartum and before Kona was four hours and all went well.

My only goals for Kona were to beat my slowest-ever Ironman swim, bike, and run times. As soon as I got out of the water from the swim and saw I'd beaten my swim time I knew it'd be a good day. I ended up running a 3:28hr marathon and finishing in 11:34hrs, with stopping to pump for 15 minutes each time in T1 and T2.

All the women in the change tent were very supportive when they saw me pumping. Ironman gave me an area to sit and my husband could wait outside so that I could return my milk to him.

My advice for other women wanting to race postpartum is to seek out advice. I could not have attempted the journey to Kona postpartum without my physical therapist or the women who have been through the same experience and assured me I could do it.

My next race is Ironman Coeur D'Alene in June. I haven't decided yet if I'll pump or when I'll pump during the race, but I'm excited to have my boys and family supporting me out on the race course for another Ironman.

3 OF THE BEST

ENERGY CHEWS

UNDER £45

SIS BETA FUEL ENERGY CHEWS

£44 FOR 20 Packing 46g of carbs per 60g serving, SiS says these gels increase carb usage efficiency without gastrointestinal discomfort. All that comes for £2.20 per serving, with lemon and orange flavours available. *scienceinsport.com*

UNDER £54

CLIF BLOKS

£53.91 FOR 18 This popular choice of energy chew comes in packs of six totalling 48g of carbs per 60g serving, with multiple flavours available. Cost per serving is from £2.99. *cliffbar.co.uk*

UNDER £55

VELOFORTE ENERGY CHEWS

£54.99 FOR 24 These energy chews use natural ingredients to deliver 41.5g of carbs per 50g serving, plus a small hit of sodium and potassium. Cost is from £2.29 per serving and there are four flavours. *veloforte.com*

AQUASPHERE DEFY ULTRA

FROM £90 *Will this wide-screen swim mask offer an aquatic version of your top-end cycling glasses?*

HOTTEST NEW GEAR

While a good fit is vital, field of vision and clarity can have a huge impact on your swim experience. That's something Aquasphere has put at the centre of its next launch, the Defy Ultra. Glance quickly and you could easily mistake this swim mask for a pair of Oakleys (particularly the Encoder sunglasses) thanks to the large one-piece lens and frameless design. The mask is available in three options, with each lens designed for different conditions and offering varying levels of colour saturation, glare reduction and light transmission. What they all have in common, though, is the all-new Duocurve lens, which is made for panoramic, distortion-free vision.

Going back to fit, the Defy Ultra is designed using an ultra-thin silicone that's said to contour to your face in order to deliver a leak-free fit. There's also a QuickFit Buckle that's said to allow quick yet secure adjustments to the strap, while an ergonomic nose piece aims to reduce drag and improve hydrodynamics. Head to 220tri.com and search 'Aquasphere Defy Ultra' to find our full review. *uk.aquasphereswim.com*

stolen goat

OWN THE ZONE

RAISE THE TEMPO, UP YOUR GAME, TAKE THE WIN.

When you're in the zone, you want to be fully focused on the race ahead. Designed for speed and crafted for comfort, our new tri suits have been created for next-level performance.

Don't follow the flock, join the Herd. Stand out from the crowd and better your personal best in an ultra-aero, pro-level Stolen Goat SS23 tri suit.

Shop the new range of tri suits at stolengoat.com/tri23

220 TRIATHLON | ourinsiders

CALLING 220TRIATHLON READERS

SHARE YOUR THOUGHTS AND EARN AMAZING REWARDS!

As a valued reader of *220 Triathlon* we'd love you to be part of **Our Insiders** – an exclusive online community that rewards you for sharing your feedback about the magazine, as well as other topics.

You'll be entered into our monthly prize draw for each survey you complete, as well as gain access to other special offers and rewards!

To get started, visit **ourinsiders.com**

DANIEL SEEX

DOPING DESTROYS EVERYTHING

When athletes make the decision to cheat it doesn't just rob rivals of podiums and prize money, but rips away everything we hold dear about sporting competition

TIM HEMING

Cutting through the spin of tri to address the issues that matter, Tim is a sports journalist who has written extensively on triathlon for the national press.

STATE OF PLAY

"Doping," Sebastian Kienle said, "destroys everything." In the fallout from US triathlete Collin Chartier being banned for a positive EPO test in April, the 2014 Ironman world champion can be forgiven the hyperbole.

Kienle hands in his pro card at the end of the year, and perhaps, as 42-year-old, fellow long-distance pro Tim O'Donnell stated – having witnessed his own wife, three-time Kona champ Mirinda Carfrae, retire in March – he's glad he's in the twilight of his career, too.

Chartier has become a pariah for his partial doping admission, perhaps even more so than had he plead the 'BS burrito' defence (as he called it in his statement), claimed tainted supplements, and left a shred of doubt.

There's an irony in that by saying he took the blood-booster without help, but didn't start until two months after a career-defining $100k race win, he's faced more opprobrium than had he said nothing at all. Still, it's a narrative that struggles for plausibility. Collin knows this, too.

Cheating robs clean rivals of celebrations, profile and prize money. Yet it goes further, bringing the entire elite sport into disrepute, casting a cloud over coaches, training partners and those who choose the same training environments. Admiration turns quickly to suspicion, even paranoia.

That's what doping does. It tears away trust. When an athlete withdraws from a race for 'personal reasons,' we doubt. When they cite injury, we doubt. When organisations pledge increased rigour to weed out cheats, we doubt motives. Do they want clean sport or to minimise reputational damage?

The emotional toll shouldn't be discounted. Scoff at that if you like but I've heard from athletes who, minds racing, have had sleepless nights.

Germany's Frederic Funk even told the *How They Train* podcast his heart rate variability [a health tracker] in the days after Chartier's announcement read as if he was overtraining. Funk was recording a podcast series with Chartier when the news broke.

It's why there shouldn't be expectations on athletes to always speak out. This is their life and livelihood. It's not just Chartier's talk of depressive episodes leading to poor choices, but the emotions other pros have to process in the aftermath.

It feels as if there are no answers. Cheating is human nature, the motivations are multiple. Confounding to most, morally conscionable to those who cheat. If the scales fall from the eyes, the history of sport was always thus.

So move forward, try to find answers, learn lessons, educate and improve the culture within a sport. While restating that athletes have no obligation it was heartening to see an outpouring of anger and disappointment.

As Lionel Sanders, a training partner of Chartier, said: "You've thrown us all under the bus". Sanders is a passion-filled orator. We share his sentiments. But, of course – as the Canadian himself says – we now doubt Sanders' sincerity, too. Doping really does destroy everything.

> *"As Lionel Sanders, Collin's training partner, said: 'You've thrown us all under the bus'"*

FAO 220

Your emails & pictures

STAR LETTER

Got an opinion to share? Then email us at fao220@220triathlon.com

Practise sighting by lifting your head to focus on a set point each time, finding it as quickly as possible

@DANIEL_JAMES_PIX

MAKE SADDLES SIMPLE

Last summer I did my first triathlon and I absolutely loved it. So much so that I entered in another sprint event before the end of the season. Now that I've got the bug and am taking things a little more seriously, I'm starting to think about what kit I can upgrade to help make training and racing more comfortable.

As I don't have a bike trainer I've done a lot of my training through winter at my local gym, but now that I'm regularly cycling outside again on my own bike, I feel like it's time to upgrade my saddle to make longer rides more comfortable. Honestly, I didn't realise quite how much choice there would be, and that's before you even add women's and men's options into the equation.

So what I want to know is do I need to go for a female-specific bike saddle, or will a standard one work just as well? Sorry if it's a stupid question, I'm just still a bit new to all of the intricacies of the sport! *Laura Holt*

220 replies: There's no such thing as a stupid question, Laura, and this certainly isn't one! In answer to your question, it's important to note that all bodies are different and what suits one person may not suit another, which is why it's useful to try before you buy if you can. Female saddles tend to accommodate the fact that women typically have larger sit bones than men and more pelvic rotation, which often means a wider and more cushioned rear section and smaller front. Head to 220tri.com and search 'women's saddle' for detailed advice.

> *"I'd really like to avoid zig-zagging in the swim on race day, please!"*

A SIGHT FOR SORE EYES

Now that the weather is improving, I've started to add open-water swims into my training to complement the weekly pool swims I've been doing through winter. It's been great to be swimming outside again, but it has also reminded me how poor my sighting is! While I don't mind a bit of zig-zagging in training, I'd really like to avoid doing it on race day, as I struggle with the swim enough as it is.

My main aim this year is Outlaw Half Holkham, which really isn't that far away, so is there anything I can do in the run-up to make things run more smoothly? Any advice would be much appreciated. *Micheal Harris*

220 replies: It's great to hear from you, Micheal, and let us first say all the best for Outlaw Half Holkham – we're sure you'll do great. As for sighting, you're not alone with your troubles, as this is a very common issue. Head to 220tri.com and search 'sighting' for a range of articles offering tips and explaining common mistakes. In brief, try not to sight too often, don't keep your head above water for too long and try not to move your head around too much. Practice ultimately makes perfect, so spend some time in the pool practising lifting your head to focus on a set point each time, finding it as quickly as possible, and then carry that through to your open-water sessions.

THE SMALL PRINT

As a retired person currently gearing up for his first-ever triathlon, I agree with Ralph Haughton's letter [issue 416] about the font. I/we realise there's a lot to pack in, but it would be really good if you could increase the font size a tad. *Neil Deuchar*

220 replies: Thanks for reaching out, Neil. We'll make a few tweaks to improve readability going forward.

WRITE IN AND WIN!

STAR LETTER WINS
MUC-OFF BUNDLE
WORTH OVER £100

WWW.MUC-OFF.COM

Muc-Off
BIKE PROTECT
PUNK

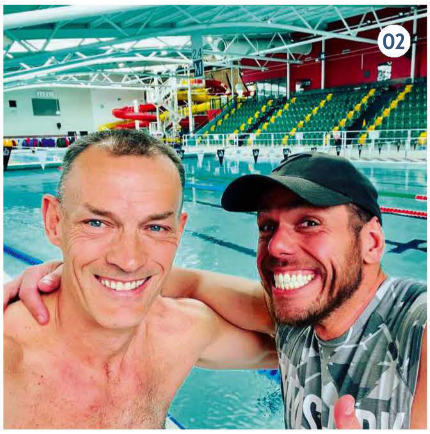
your INSTAGRAM TRI PICTURES

WORTH A THOUSAND WORDS

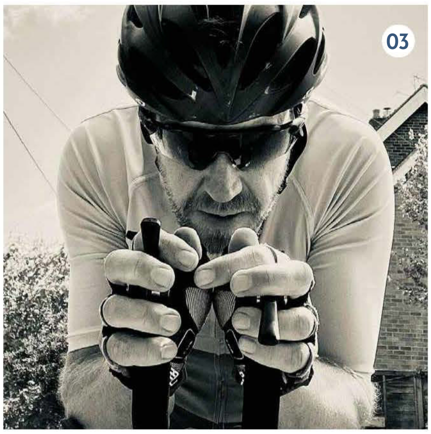
TAG YOUR PICTURES #220GRAM

01

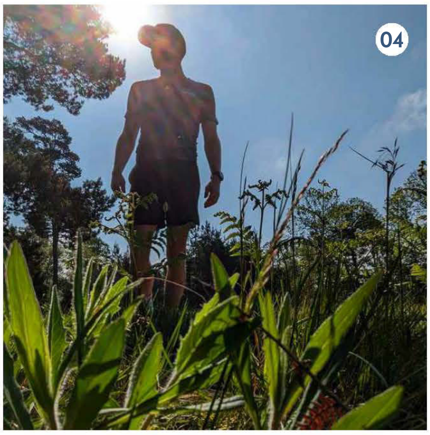
02



03

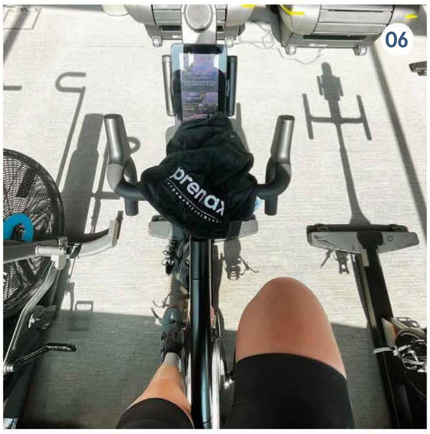


04



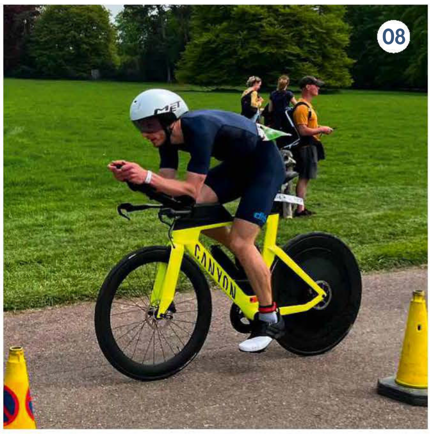
05

06

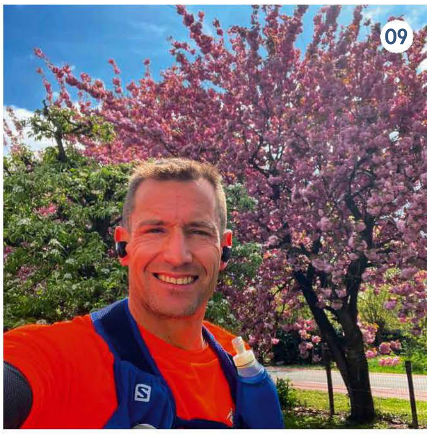


07

08

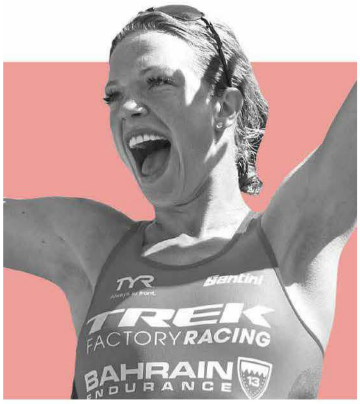


09



1 @emmsy6 Wow what a day! After completing @ironmantri Wales last year, I entered @theroctri as my next challenge!! An amazing race...
2 @jase140.6 Nice to share the pool today with @rossedgley Needless to say he was faster than me.
3 @pseymour75 We're on a roll in the UK, another sunny day. Dry roads and sun means TT bike fun.
4 @vogtr Recovery week...
5 @lindaroberts_226 Lovely day to be coaching transition practice with Chichester Triathlon Club.
6 @court.granger Another day another @gozwift session
7 @sarah.alice100 First time swimming with Kingfishers swimming club tonight and the first swim of the season.
8 @joevcooper Weston Park Duathlon! This sprint-distance race was hard going and was really not feeling great but got through it.
9 @lionelwille_tricoach What a nice day for my longest run of the year (so far).

THE COMEBACK QUEEN



SHE'S ALREADY WON A 70.3 WORLD CHAMPIONSHIP TITLE BUT SHE'S GUNNING FOR A SECOND THIS YEAR – AND SHE SEEMS RIGHT ON TRACK TO DO SO. HOLLY LAWRENCE SHARES WHAT STILL DRIVES HER, WHY SHE MOVED TO BOULDER AND HER PLANS TO GO LONG…

WORDS EMMA-KATE LIDBURY

Holly Lawrence is a podium contender at any race she enters, but the bubbly Brit's pro career hasn't always been the easiest of rides, with illness and injury presenting plenty of challenges. This season, though, the former 70.3 world champ is happier, healthier and readier than ever to prove she's still got what it takes to succeed at the very top…

220: You've lived in the U.S. for almost a decade now and you recently moved to Boulder. What prompted the move and how's life in the tri mecca?

Holly Lawrence: We came to Boulder for a few weeks last summer and instantly enjoyed it; LA was becoming an increasingly hard place to live and train, especially after Covid. I tend to absorb the energy or stress of others. Boulder is so much quieter and life just feels easier. I grew up in a rural area in the UK, so being in nature feels like home. Where we live, I can be out riding or running on trails within a few hundred metres of my front door.

Of course, it's also great to have so many people to train with, if I want to. I hate swimming on my own and have always enjoyed swimming with people faster than me. I'm often in the pool with Flora Duffy, Rudy von Berg and ITU speedsters like Kevin Macdowell and Kirsten Kasper.

I usually ride and run with Sean [Jefferson, her fiancé, coach and former pro ITU racer] and link up for some of my long runs with friends who are pro runners. I'm a social trainer and this gives me a good mix of training solo when I need to and being around others when I want to.

220: Where will we see you racing this year?

HL: I started the season with fourth at 70.3 Oceanside. Next up for me will be the PTO European Open in Ibiza in May [Holly finished 10th], then probably 70.3 Boulder in August, the PTO US Open in August and possibly the PTO Asian Open in Singapore, but that's only a week out from my main focus – the 70.3 Worlds in Finland at the end of August.

220: You've already won a 70.3 world championship [in 2016]. What motivates you to win another?

HL: I want to prove it wasn't a fluke. I want to get back to the form I had before getting sick at the end of 2019, and it's the pursuit of that that really drives me. [Lawrence won five 70.3 races in 2019 after returning from a broken foot in 2018, but was then sidelined for months with pneumonia in late 2019].

HOLLY LAWRENCE'S CAREER HIGHLIGHTS

Name: Holly Lawrence
Age: 33
Home: Boulder, Colorado (originally Buckland St. Mary, Somerset)

BEST RESULTS TO DATE

- **1st,** 2016 70.3 World Champs
- **2nd,** 2019 70.3 World Champs
- **1st,** 2019 70.3 North American Champs
- **1st,** 2019 70.3 Asia Pacific Champs
- **1st,** 2019 70.3 European Champs
- **1st,** 2019 70.3 Dubai
- **1st,** 2019 70.3 Middle East Champs
- **2nd,** 2019 70.3 Oceanside
- **1st,** 2020 70.3 Cozumel
- **1st,** 2021 70.3 Des Moines

JAMES MITCHELL/PTO

◀ **Holly racing the 2023 European Open in Ibiza, in May, where she placed 10th. On Instagram, she reflected: "Not the race I expect from myself today"**

HOLLY'S TOP TIPS FOR NAILING YOUR NEXT 70.3

Enjoy it! *I always see people who look like they can't wait for it all to be over. I do everything I can to keep it fun during race week, whether that's my own hotel pamper session or meeting up with people who make me laugh.*

Fuel right. *I limit fibre and increase my carb intake for three days pre-race so I'm not jamming all those carbs in the day before.*

Train your brain. *In the days leading up to a race I'll mentally rehearse the whole race. On race morning, I'll practise my entire transition flow so that during the race I don't even have to think about it.*

I love that feeling of being in a race, knowing you're at your very best, executing the performance you're capable of, pushing yourself to your absolute limits. It's at those times that I can really eke everything from myself. I had that in 2019 and it felt phenomenal.

There's still more to come from me – I know it and my team knows it – and that's what keeps me motivated. I feel like it's taken a while to get back to where I was, but I'm rediscovering that form now and that excites me. The standard of racing is higher now than it's ever been, the hierarchies are always changing; I want to prove I can still be the best of the best.

220: And you have more than just the Worlds to look forward to this summer.
HL: Yes, Sean and I are getting married the week after the 70.3 Worlds. We'll fly from Finland to the UK where our wedding will take place in the village where I grew up, Buckland St. Mary in Somerset. My parents are arranging it all and we have friends and family coming from all over the world.

220: You say a happy Holly is a fast Holly. How do you get the best from yourself?
HL: Consistency and routine. I love routine. I love quietly doing the work, day after day. I like to keep it fun. I like to think of every race I go to as a holiday. Even though I'm doing this professionally and it's my job I still want it to feel special, I never want it to feel too serious. That's why you'll always see me goofing around at the start of a race. I like to keep it like that and I like to interact with fans and age-groupers as much as possible.

220: You have a strong social media presence. How important is social media for pro athletes nowadays?
HL: Incredibly important. But I always remind myself that I'm an athlete first and foremost, not an influencer, and nothing is more important than training. It's something I've struggled with because I'm naturally a shy person, so it doesn't always come easily to me to share things in such a public setting.

Sean and I recently launched our own YouTube channel and I struggled with that a bit to begin with. But over the past few years it's become especially important and is typically written into every sponsorship contract now. More than anything, I want my social content to reflect me and who I am, to be authentic.

220: Do you have any plans to step up to Ironman this year?
HL: Tentative ones, yes! I've been considering it and it's something we will make a call on a bit later in the season. If I do one it would obviously be after the 70.3 Worlds and then it would be a case of picking a race that plays to my strengths.

220: Do you ever think about what you'll do when you retire?
HL: I've always said I'll keep racing for as long as I'm enjoying it and I still feel I have plenty of years left yet. Sean and I would like to have a family, so that's something I've thought about, but that obviously wouldn't have to mean the end of my racing career. It's been so inspiring to see so many pro women proving that you can do both and come back to racing, particularly after Chelsea's [Sodaro] win in Kona last year. I feel like I'm someone who always enjoys the energy and excitement of racing, so when it does come time to retire I'd want to stay in triathlon somehow, making the most of what I can give back to the sport.

SUBSCRIBE TO 220 TRIATHLON

220 TRIATHLON
SWIM. BIKE. RUN. FASTER!
SMASH YOUR GOAL
With 11 simple habits
HOW TO BE FEARLESS WITH
LOUISE MINCHIN
PLUS
TRAINING IN HOT WEATHER
RACING XTERRA OFF-ROAD TRI
4 HIGH-PROTEIN RECIPES
Santini
220 TRI

DON'T MISS AN ISSUE!

Need some training and racing inspiration? Or fancy signing up for your first race in 2023? Whatever your targets, our one goal here at *220 Triathlon* magazine is to make sure you achieve them. In every issue we bring you the best training and racing advice, as well as all the cutting-edge kit you need to perform at your optimum. And, for a limited time, you'll receive a fantastic pair of Huub Brownlee goggles, worth £34.99, plus save 30% on the shop price when you sign up for a subscription. So don't delay, subscribe today!

Helen

Helen Webster

SAVE 30% WHEN YOU SUBSCRIBE PLUS RECEIVE **HUUB BROWNLEE GOGGLES** WORTH £34.99!

220 TRIATHLON
START SUBSCRIBING TODAY!

☑ **YES!** I WOULD LIKE TO SUBSCRIBE TO *220 TRIATHLON!*

☐ UK Direct Debit £22.99 every 6 issues
- SAVE 30% PLUS HUUB BROWNLEE GOGGLES

☐ UK cheque, credit / debit card - £57.20 for 13 issues
- SAVE 20% PLUS HUUB BROWNLEE GOGGLES

☐ Europe 13 issues by credit card @ £64.95
☐ ROW 13 issues by credit card @ £69.95

KEEP IN TOUCH
220 Triathlon magazine would love to email you with updates, special offers and promotions. **Please tick here if you would like to receive these** ☐ (You can unsubscribe at any time.)

We'd also love to tell you about other offers and promotions from our publisher, Our Media Limited. If you'd rather not be contacted this way please tick here: **Post** ☐ **Phone** ☐ Your data will be held by Immediate Media Company Limited (a parent company of Our Media Limited). For information about how we protect your personal data, please read our privacy policy.

POST YOUR COMPLETED FORM TO:
UK ORDERS FREEPOST OUR MEDIA (please write in capitals)
OVERSEAS ORDERS *220 Triathlon* magazine Subscriptions,
PO Box 3320, 3 Queensbridge, Northampton, NN4 7BF
ORDER CODE TTP418

YOUR DETAILS (Essential)
Title First name
Address

Postcode
Telephone no. Email

RECIPIENT'S DETAILS (for gift subscription)
Title First name
Address

Postcode
Telephone number Email

PLEASE CHOOSE FROM 3 EASY WAYS TO PAY
○ I would like to pay by Direct Debit - please complete the form below
○ I enclose a cheque / postal order made payable to Our Media Ltd £
Please write your name and address on the back of the cheque
○ Credit/debit card - please fill in details below

CREDIT CARD
○ Visa ○ Mastercard
Card Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐
Issue Number ☐ Valid From ☐☐ ☐☐ Expiry date ☐☐ ☐☐
Signature Date

Instruction to your bank or building society to pay by direct debit only

Originator's identification number 4 4 3 7 7 3

Name and full postal address of your bank or building society
To: The Manager Bank/building society

Signature (s) Date

Name(s) of account holder(s)

Branch sort code ☐☐☐☐☐☐
Bank/building society account number ☐☐☐☐☐☐☐☐

Instruction to your bank/building society
Please pay APS RE Our Media Ltd Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with APS RE Our Media Ltd and, if so, details will be passed electronically to my Bank/Building Society.

Signature (s) Date

Banks and building societies may not accept Direct Debit instructions from some types of account

* Huub Brownlee goggles and 30% saving offer available to UK residents by Direct Debit only. Stock is subject to availability, 220 Triathlon reserves the right to substitute the gift with an alternative. Your gift will be sent separately within 28 days. Your subscription will start with the next available issue.

Offer ends 11 July 2023

SPECIAL INTRODUCTORY OFFER

SAVE 30%

WHEN YOU SUBSCRIBE PLUS RECEIVE

HUUB BROWNLEE GOGGLES

WORTH £34.99

GREAT REASONS TO SUBSCRIBE BY DIRECT DEBIT:

- Save 30% – £22.99 every 6 issues by Direct Debit
- Plus, receive Huub Brownlee goggles worth £34.99!
- Never miss an issue
- Free UK delivery direct to your door
- Stay up-to-date on everything you need to know about triathlon

3 EASY WAYS TO SUBSCRIBE!

1. Order online at **buysubscriptions.com/TTP418**
2. Call our hotline on **03330 162 131**[†] (please quote code **TTP418**)
3. Complete the Direct Debit form opposite

[†] UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) and are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). Outside of free call packages call charges from mobile phones will cost between 3p and 55p per minute. Lines are open Mon to Fri 9am – 5pm.
If calling from overseas, please call **+44 1604 973739**

"IT'S REALLY EMPOWERING TO PUSH AT THE BOUNDARIES OF WHAT YOU THINK IS SCARY"

Fresh off completing several of the toughest triathlons in the world, Louise Minchin found her next adventure in telling the stories of some of the world's greatest female adventurers. As her new book **Fearless: Adventures With Extrardinary Women** ***launches, we catch up with her on stepping out of comfort zones, diving under ice and the joy of cycling down steep hills really, really fast...***

WORDS HELEN WEBSTER
IMAGE ©TOMWARRYPHOTOGRAPHY

The Norseman bike leg is just bonkers! My husband, who was also my support, was really worried, because grown men were getting off their bikes and crying at the top of this mountain and he thought, 'If that's what grown men are doing, what is Louise going to be doing?!' Well, I was just laughing – laughing my head off because I just thought, this is the most ridiculous thing I've ever tried to do..."

Louise Minchin is laughing again now, bubbling with the kind of infectious enthusiasm you only ever find among those who completely and utterly love what they do. We're catching up ahead of the launch of her new book *Fearless: Adventures with Extraordinary Women*, which takes Louise on 16 amazing journeys, each with different women who excel in a unique sport. From wild caving to freediving under ice, triathlon to rugby, you'll find it all in here.

But first, a catch-up. Louise is no stranger to most triathletes. Having written about her journey from complete novice to GB age-grouper in her first book *Dare To Tri* (2018), she inspired many to follow in her footsteps, with a mix of enthusiasm, raw honesty and practical advice. From there, we followed her triathlon journey in the pages of *220* as she went on to complete Patagonman and Norseman – two of the toughest races on the planet. ▶

LOUISE MINCHIN

Well-known for presenting BBC Breakfast for 20 years, Louise also presents the BBC triathlon coverage. A keen endurance athlete herself, she's competed as a GB age-grouper in three world champs, two aquabike world champs and one Euro champs, as well as completing Patagonman, Norseman, Breca swimrun and the 2023 London Marathon.

STEVE ASHWORTH

▲ Louise competing at Patagonman in 2018 as a 50th birthday present to herself

"The more I do this kind of sport, the more I just want to be outside doing really exciting things. And in some ways, for me, the harder the better," says Louise. "I only did Norseman because of Patagonman, which was my present to myself for my 50th birthday. What a ridiculous present! I had seen a tweet about it, which read 'Patagonman, the extreme triathlon at the end of the world', and I just thought – oh, that looks fun!

"So I looked, and it was in deepest, darkest, Patagonia and I had spent three months living in that area just after I'd left university, working as an interpreter. So for me, it was all the stars aligning."

Louise is the first to admit that going from representing GB in short-course to heading straight to Patagonman is not the usual trajectory for an athlete. She admits she loves the adventure, though – the feeling of completing 226km of tough terrain under her own steam while taking in amazing scenery. Which brings us nicely on to her latest project – *Fearless*.

Within the book, Louise joins 16 women on adventures within their sports, taking part in each one with her trademark mix of guts, hard work, vulnerability and enthusiasm. They aren't just token 'toe in the water' adventures either – for some of the sports, such as ice diving, Louise had to undergo rigorous training, while for others her fitness was sorely tested, as were her own boundaries of what scares her. So, while we could chat tri all day, let's find out more…

220: The book is amazing, Louise – and even more so because you take part in all the adventures, from wild caving to mountaineering to ice diving! What inspired the project?

Louise Minchin: They're all stories about endurance and being intrepid and courageous – this is what I live for! I'm a huge believer in the transformative power of sport, not just for yourself but for other people, and influencing other people. And I noticed that pretty much every time we talked about the kind of story I would call 'endeavour', it was a man. You only have to go to the sports section of any bookshop to see that.

So I thought, let's go do it – let's go and actually do the things these women love with them, even though it's going to be massively challenging for me!

***220*: Many would say you're fearless yourself – would you agree?**

LM: We all need fear because fear should stop us when we're pushing too far... So actually, yes, fear is a good thing. But it's really empowering to push at the boundaries of what you think is scary, because that means that next time you're in a tough situation – and it could be a tough situation at work or in your personal life – it builds your resilience and your ability to carry on and get through difficult things.

So am I fearless? Yeah, I can do stuff that other people find really scary. Like, for example, jumping off the back of the Norseman ferry in the dark. For me, it's kind of exciting, because I know I can swim. So unless the orcas eat me (which obviously went through my mind in Patagonia!) I know it's going to be okay and I'll really enjoy it.

That's what's really important about the book – we all have different levels of where our fears are. I do accept that mine aren't probably average boundaries. But it's such a spread of different experiences in that book, and we can all pick some out that scare us. ▸

> **"WE HAVE DIFFERENT LEVELS OF WHERE OUR FEARS ARE, BUT I DO ACCEPT THAT MINE AREN'T AVERAGE BOUNDARIES!"**

113 EVENTS .com
COTSWOLD 113 MIDDLE DISTANCE TRIATHLON 2022
976 CAROLINE

Louise with Caroline Bramwell, left, who has a stoma, having completed the Cotswold Middle

BLOOMSBURY.COM

LOUISE'S LESSONS FROM FEARLESS WOMEN

1 PLAN METICULOUSLY

For all the women in the book, safety is their number one priority. Whether that's Mimi planning an adventure, or it's Mollie Hughes going on an expedition up Everest, or it's Anoushé Husain planning her route up an indoor climbing wall and her kit. None of this happens by chance. And if you leave it to chance, you're probably putting yourself in danger.

2 DO THINGS BECAUSE YOU LOVE THEM

These women aren't doing it because they want the headlines or the kudos – they just do it because it's part of their DNA and they love it. So find something that you love, because then it becomes easy and it becomes part of your life.

3 USE ADVENTURE TO PUSH YOURSELF OUTSIDE OF YOUR COMFORT ZONE

Anything that pushes you out of your comfort zone and makes you feel uncomfortable, whether it's because you're cold or you're tired or you're scared, or whatever it is – that really stretches your character and your resilience. And I know that I take lots of these lessons back into my work and home life.

STUDIOPROTEY.COM

▲ Louise wild caving in the Mendip Hills, a feat she described as "incredible, but I never want to do it again!"

220: *I think most of our readers would be excited by the swim/bike/run adventures rather than scared. So for me, it was the wild caving chapter that was out of my comfort zone – I don't think I could do that!*

LM: Yes! I did it, it was incredible, but I never want to do it again! You're not the only one, people have really been shaken up by that adventure. My fear was that all those rocks that have been there for thousands and thousands and thousands of years above me would choose to fall down on that one day that I'm there. So I'm thinking I'm going to get crushed by rocks! Of course, I wasn't going to get crushed by rocks. But you know, you have your fears. To me, it felt real. But again, to Christine Grosart, that's nothing for her. It doesn't even cross her mind. It's her world.

220: *The openness and vulnerability you've shown in your own adventures can really help others relate to them. Why do you think this is important?*

LM: I wanted it to feel accessible and I think if I'm vulnerable and people realise that I'm not gung ho – and that I take these things seriously and they do scare the living daylights out of me sometimes – then in a way that can encourage someone else to try something they wouldn't have done, and that's brilliant.

"JUST LOOK AT CATH [PENDLETON] AND WHAT HER BODY CAN DO – SHE'S INSPIRED SO MANY PEOPLE"

Louise headed to Finland with record-breaking ice swimmer Cath Pendleton to freedive, under ice, in the dark

HER SPIRIT
Louise
HER SPIRIT
MIND BODY FUEL
BLOOMSBURY.COM

And I think that's what I really love about the book. Just the diversity of women that we've got in there is just so inspiring, because as a human race we're diverse, we're all different shapes and sizes and we should celebrate all of that. It's wonderful.

220: *Cath Pendleton stands out here – she was very open in the book about her struggles with body image. But I've swum with her before, too, and she's phenomenal in the water. It's just stunning to watch how her body moves.*

LM: Isn't she? Yes! We were both new to free diving under ice in the book. We've both got that love of the water and we really identified over that feeling of being a mermaid. And I felt afterwards that we were like these two little mermaids who've been on this incredible adventure together, and hopefully that will inspire other people to go and do something similar. Just look at Cath and what her body can do – she's inspired so many people. We need to celebrate all bodies.

Mimi Anderson [*ultra-endurance athlete and multiple record holder who has been open about her 15-year struggle with anorexia – Ed*] in the book, too, who's had her own issues with body image, said one of the most important things to me, which was that she's proud of her body for what it can do. I'm proud too, that my body can get me from a ferry here in Norseman to a hundred and however many miles away! I think if we can be proud of what our bodies do, that's really important and sends a real message out there.

220: *In the book we meet two triathletes – Caroline Bramwell and Lucy Gossage – both of whom have different stories. How were your adventures with them?*

©TOMWARRYPHOTOGRAPHY

Still smiling during the 56km multi-terrain bike section of the Hike/Bike/Paddleboard event

FEARLESS: ADVENTURES WITH EXTRAORDINARY WOMEN

Louise Minchin's new book is on sale from **25 May 2023** in hardback, **£18.99**

Find out more at **Bloomsbury.com**

Louise Minchin
Fearless
Adventures with extraordinary women

©TOMWARRYPHOTOGRAPHY

▲ Louise teamed up with multiple IM champ Lucy Gossage for Hike/Bike/Paddle – an 18km self-navigated trek over the Yorkshire Dales, a 56km bike ride, and a 2km team paddle on a giant, inflatable, stand-up paddleboard!

> “LUCY [GOSSAGE] TALKS ABOUT THE INCREDIBLE PRIVILEGE SHE HAS, AND WHICH I HAVE, THAT WE CAN *CHOOSE* TO SUFFER”

LM: Gosh, there's lots of things going on with those two. Lucy was one of two athletes who were the inspiration for the book actually – Mimi was the other one.

As your *220* readers will know, as well as winning many Ironman races in her life Lucy happens to be a cancer oncologist, and the two things have sort of melded together in this brilliant, dynamic and powerful way.

Lucy talks about when she's training or when she's having difficult times in a race, she thinks about the incredible privilege she has (and which I have!) because we are lucky to put ourselves in that position – we can choose to suffer – whereas her patients are cancer patients. They don't get a choice.

So then we come to Caroline. I feel very lucky that my body works with me, not against me, whereas Caroline has a stoma because she had ulcerative colitis. So her whole immune system was working against her – she was offered a stoma as basically a last resort.

I love what she does because she's racing Ironman-distance races with a stoma, and I just think what a fantastically brave thing to do and what an amazing role model she is to other people.

We did a half-iron distance race together [the Cotswold Middle Distance] and at the time, I wasn't even going to start the run because it was before a knee operation I was waiting for. But I just thought, ‘You know what Louise, just get over yourself. Caroline is doing this with a stoma. You can just run or walk or whatever it is, just do it!’

I think it takes a particular type of bravery to start a race like she does, knowing that she's probably going to come, if not last, maybe second or third from last. And I think that's admirable, actually, in itself.

I remember going to bed after Norseman, absolutely exhausted, and hearing that bell ringing and cheering for those last racers and I was thinking, God, this is where the real heroes of the race finish. They've been on their really dark, dirty journeys to get there. No disrespect of course to those people at the pointy end, but I just think sometimes, you know, it's really worth staying and watching those last people coming over the finishing line because that's really, really hard.

otinova®
Protect, Prevent & Prepare against swimmer's ear
FREE P&P
Be ahead of your game and make Otinova an essential part of your training kit
Scan me to discover more
otinova®
EAR SPRAY / OHRENSPRAY / SPRAY AURICULAIRE / SPRAY PER LE ORECCHIE
Treatment of ear canal inflammation.
15 ml

11 WAYS HABITS CAN TRANSFORM YOUR SEASON

Looking to reach new heights in your training and racing this summer? Here we delve into how something as simple as a habit can help you achieve that…

Words Rob Slade Illustrations Daniel Seex

"It's no secret. Consistency is probably the most important factor when it comes to training, especially for endurance events," explains Non Stanford, former World Triathlon champion turned coach. Without it, your body will struggle to go through the continued physiological adaptations it needs to deliver performance gains, and that's the reality no matter what your training and racing goals are.

The trouble is, that consistency can be hard to achieve and sustain, as can good sleep practices and nutrition. But that's something that habits might be able to help with. According to a study in the *British Journal of General Practice* in 2012, psychologically habits are defined as 'actions that are triggered automatically in response to contextual cues that have been associated with their performance'. Each and every one of us has habits, both good and bad, but hijacking them can help propel us to greater levels of performance in life and, more importantly for us, in sport. And the good news is that all it'll take is small changes to your behaviour. So over the next few pages, with the help of pro triathletes and habit experts, we take a look at how to do it… ▸

1 SHOW UP

Struggling to even start some sessions in your plan? Create a habit of simply showing up. In his book *The Slight Edge*, bestselling author Jeff Olson wrote: "When you talk with people who have achieved extraordinary things and ask them how they accomplished whatever it is they've done, it is stunning how often they will tell you some version of this: I just decided to do it."

For example, rather than trying to run 15km every Sunday as your long run, simplify it. Instead of focusing on completing the training session and hitting certain numbers, create a basic behaviour that's simply the action of putting on your run kit and stepping outside. Two-time Paratriathlon world champion Claire Cashmore is on board with the idea. "When I was a swimmer I used to obsess so much more about when I hadn't hit particular times in training, but I've realised that that one bad session doesn't matter. It's actually the repeat, week on week, that's going to result in the outcome you're looking for."

2 BREAK DOWN BARRIERS

In 1954 US psychologist Gordon Allport developed a concept called the principle of least effort, which was a nod to the idea that we typically look for a route of minimum effort when attempting to achieve a goal. Sound familiar? Well, the good news is that you can use this concept to your advantage.

When trying to set new habits, make it as easy as possible to follow them by removing any potential barriers or friction. An example of this is to simply lay out your swim, bike or run kit the night (or morning, if you plan to train after work) before your session.

"I always used to put my stuff out ready so you literally just have to get up and not even think about it," explains Non Stanford. "You just put your clothes on, your bag is ready, you get in the car and go. If you organise the day before, it's a lot easier." Essentially, you just want to make a new habit so easy that you don't even need motivation to do it.

"WHEN TRYING TO SET NEW HABITS, MAKE IT AS EASY AS POSSIBLE TO FOLLOW THEM BY REMOVING FRICTION"

3 STACK HABITS TOGETHER

Each of us already has a range of habits pre-programmed into us. Some are bad, but many are good or neutral, and we can actually use some of these existing habits to build new ones. This is something that James Clear, author of bestselling book *Atomic Habits*, refers to as habit stacking. “You probably have very strong habits and connections that you take for granted each day,” he writes. “You can take advantage of these strong connections to build new habits.”

How does it work? Simply identify existing behaviours or habits you have and pick one to be the trigger for a new habit you want to establish. The habit you’re stacking on top of needs to happen as regularly as the new habit you want to form, and the key is to be incredibly specific about the trigger. For example, if you want to build a habit of doing a yoga or stretching session once a week, you could stipulate that every time you sit down to start watching your favourite TV programme, you’ll also begin your routine.

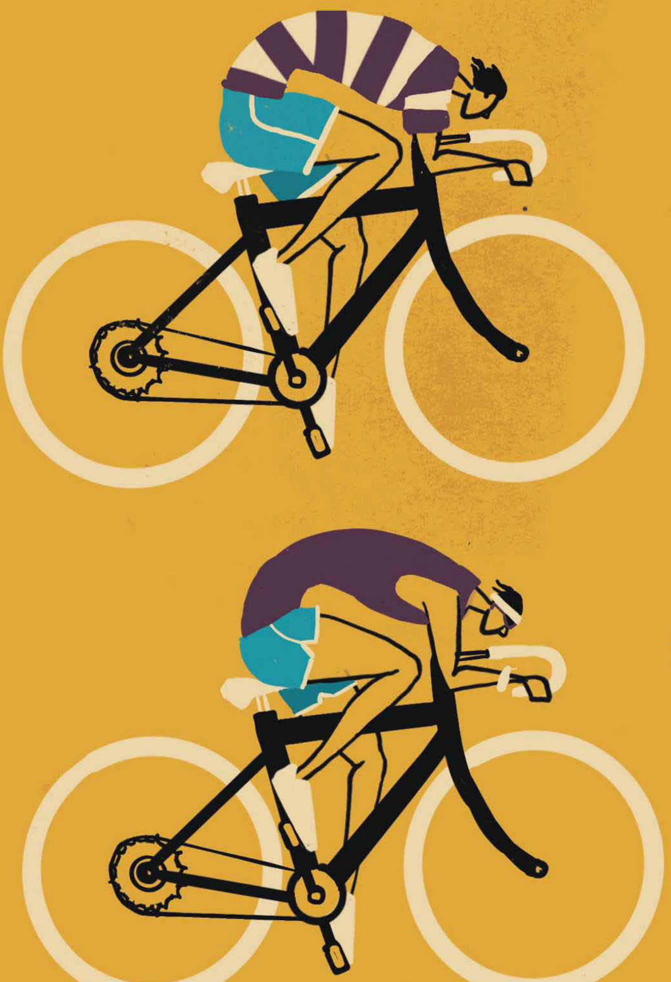
“WE CAN USE OUR LUST FOR INSTANT GRATIFICATION TO HELP US ESTABLISH CONSISTENT HABITS”

4 USE POSITIVE REINFORCEMENT

Our brains are wired in such a way that we typically value instant gratification more than we do delayed gratification. That means we look for quick rewards rather than those that will come further down the line as a result of a behaviour we take now.

In an age-group triathlete’s scenario, this could be a case of missing a key session because we want to watch another episode of *Peaky Blinders* or go for a beer! However, alongside the other tricks mentioned here, we can also use our lust for instant gratification to help us establish habits. To do so, we must find some form of ‘reward’ to reinforce a habit after we’ve practised it.

For example, Stanford says: “It’s okay to sometimes say ‘if I do this session, I can treat myself to some cake or a beer’. That’s sometimes okay if that’s what you need to get you out the door. It shouldn’t be your ultimate motivation, but I definitely used to do that sometimes if I was just really struggling to get my trainers on.”



5 TRACK YOUR HABITS

This next tip follows on nicely from the last one: James Clear recommends keeping an eye on your habits with a tracker because it can offer both satisfaction and reward. Doing something as simple as marking off a day in the calendar is not only a good visual representation of your progress, but it helps you feel good about how you’re doing. Plus, it means if you do miss a day, you can hold yourself to account and get your habit streak back on track. ▸

6 NORMALISE HIGH PERFORMANCE

Rest assured that when we say 'high performance' we don't mean the sporting kind, but rather the process kind. When we surround ourselves with high-achieving people with similar goals and behaviour ambitions to us, it helps hold us up to a higher standard and keeps us accountable.

This is something that Claire Cashmore often tries to do in training. "I think sometimes if you know you're really going to struggle with a particular session, organise to do it with someone else and then you've got to go because you know that person will be waiting for you. You're almost holding yourself accountable."

Olympic gold medallist Jess Learmonth aligns with this idea, too: "When I was first [starting out as] an athlete, I used to train but then I'd also see my friends [and] go out and do all sorts of things." As a pro, it's something she had to work on, and while it's not so serious for age-groupers, Learmonth thinks there's much to gain from being with fellow triathletes. "It's like being in training clubs, which helps motivation and you then socialise at the same time. They're in the same mindset, as well."

7 DON'T MISS TWICE

Creating a habit is no quick task (see box out above right for more on this), and it takes discipline and commitment to see it through to the point that it actually sticks. If, however, you have a wobble and fall off that metaphorical horse, make sure you jump straight back on.

"Research has shown that missing your habit once, no matter when it occurs, has no measurable impact on long-term progress," writes Clear. "You just need to be consistent, not perfect. Focus on building the identity of someone who never misses a habit twice."

Given how important consistency is for physical adaptations for triathlon, treat this as a golden rule and you should still be able to build up the accumulative effect of your training. Stanford agrees:

"We all slip up from time to time, but try not to think, 'Well I've not done it this time, so may as well not bother'. You just need get back on, carry on the next day and it'll be absolutely fine. Nothing will be affected in the long run."

> "RESEARCH HAS SHOWN THAT MISSING YOUR HABIT ONCE HAS NO MEASURABLE IMPACT ON YOUR LONG-TERM PROGRESS"

HOW LONG DOES IT TAKE TO FORM A NEW HABIT?

Research conducted by health psychology researcher Philippa Lally and published in the *European Journal of Social Psychology* in 2009 found that it takes between 18 to 254 days for a person to form a new habit.

However, the average (median) time it took people to form an automatic behaviour was 66 days.

8 MAKE BAD HABITS HARDER

What habits are stopping you from achieving your training goals? Are you hitting snooze too often? Or are you picking up your phone and scrolling through social media instead of getting up and getting to it? Adding friction will help you break these bad habits, so assess your environment and see what you can do.

For example, if you're using your phone as an alarm, put it on the other side of the room under your kit so you have to get up and grab your kit to turn it off. Better yet, leave it outside the room and use an actual alarm clock to wake up.

Try to remove other distractions that could get in the way of sessions, too, such as chores that should have been done the night before. And if you struggle with your daily nutrition, try to remove unhealthy options from sight, but make better foods easily available.

9 HABITUATE YOUR SLEEP

Professor of neuroscience Matthew Walker is widely considered one of the world's experts on sleep. He's worked with many elite athletes and has described sleep as perhaps "the greatest legal performance-enhancing drug that too few athletes are abusing enough in this modern day and age". That's because studies have shown that it's not only vital for recovery, but it can also have an impact on performance.

Introducing good habits around sleep allows you to maximise its impact. Going to bed and waking up at the same time every day is a proven way to help, as is staying off blue-light-emitting screens just before bed. Stanford has this advice: "Set your alarm for the time that you have to get up. If you set your alarm 10mins before you actually have to get up, it's really tempting to hit snooze. But if you know you've got to get up at that time, you just up and go."

10 FAILPROOF YOUR FUELLING

Fuelling is a discipline that even the most experienced triathletes can get wrong, no matter whether it's in training, pre-race and during a race. But habits, in addition to things like alerts on your bike computer, can help you get it right. Learmonth offers up one good example of how: "Whether it's a Tuesday or a Saturday when we do our run sessions, we've always got shakes ready for the drive home." It sounds simple, but that can quickly become a habit, ensuring you get the fuel you need post-session.

Race-day is another example when you can habituate your fuelling. "All elements of pre-race become habitual within elite athletes and this can definitely transfer into age-group triathlon as well," explains Stanford. "Because we were racing all over the world, we'd try and have a meal that you could get anywhere in the world. So pre-race the night before was often pizza. And then the morning of the race was either bread with jam or later in my career I started having rice for breakfast."

Essentially, building good pre-race habits like this limits surprises and means there's one less thing to stress about.

11 USE HABITS FOR RACE DAY

Heading to races is a nerve-tingling affair that's laced with jeopardy thanks to the potential to forget key items, mess up your nutrition or fail to visit the Portaloo an adequate number of times before zipping up your wetsuit. However, a bulletproof routine with practised behaviours can relieve some of the stress.

It's something that's very important to Cashmore. "I like clarity and I like to know exactly what I'm doing and when I'm doing it," she says. "I'll always have a timeline and I'll put it up a few days before the race. It'll have what time I'm eating, what time I'm leaving, what time I'm warming up... It's always pretty much the same, so I know I always eat three hours before the race, for example." Do the same, automate it as much as possible and reap the rewards of less stress. 220

KIT ZONE

THE LATEST GEAR - TESTED BY EXPERTS

MEET THE TEST TEAM

OUR RATINGS

90+ %
BUY NOW
A GENUINE CLASS LEADER

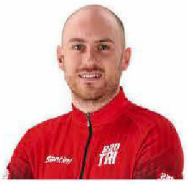
80-89 %
IMPRESSIVE
ONE OF THE BEST YOU CAN BUY

70-79 %
GOOD
A DECENT PERFORMER

50-69 %
AVERAGE
IT'LL DO THE JOB WELL ENOUGH

0-49 %
POOR
SIMPLY PUT, DON'T BOTHER!

HELEN WEBSTER
220's editor is also a qualified open-water swimming coach.



ROB SLADE
220's content editor and resident adventure seeker.

MATT BAIRD
Has spent years testing tri kit and accessories for *220*.

JACK SEXTY
A strong age-grouper focusing on top-end gains.

JAMES WITTS
He's a published author writing about sports science.

GARMIN FORERUNNER 956

£599.99 ▶ *Is an AMOLED screen reason enough for an upgrade?*

It seems a day doth not pass without Garmin releasing a new watch. Today's instalment is the Garmin Forerunner 965. By this stage of the Forerunner's evolution, changes are subtle but, to be fair to Garmin, thoughtful and usable. And so it is with the 965, whose most significant upgrade over the 955 is hardware; in other words, the display.

The AMOLED display replaces the 955's MIP display – for those looking to unpick those acronyms, it now has Active-Matrix Organic Light-Emitting Diodes rather than Memory-In Pixel – and it's a helluva change. The vibrancy and clarity of the data is next-level and is down to the 965's 206,116 pixels compared to the 955's 67,000 pixels. On early morning misty sessions aside the Severn Channel, it proved particularly impressive, feeding back just how slowly we were running! The payback is that vibrancy comes at a battery cost.

By default, AMOLED displays tend to be 'off' and are awoken by movement. It's the same with the 965. Leave it like that and you'll enjoy up to 23 days in smartwatch mode. Turn the AMOLED display on permanently and you're looking at up to a week, albeit that's taking into account around 6-7hrs of GPS use. Personally, we prefer it on. Don't know why. Just do. Either way, general battery life is solid.

The most significant software change is in the Training Status widget. In the past, Garmin focused on acute load, a reflection of one week's training. Now, it compares acute and chronic loads, chronic being the four-week load. You're given a ratio of acute to chronic. If the ratio's lower than 1.0, theoretically you're not progressing too much. Up to 1.5 and you're progressing. Over 1.5 and you're entering the realms of overtraining. It's a nifty at-a-glance feature, and if you have the 955 you can enjoy this thanks to a firmware update.

Those who enjoy dialling down into myriad running metrics now can with the 965 delivering cadence, stride length, oscillation and ground contact time. As for features already seen in the Forerunner range, you have the full colour mapping that's even more colourful and detailed thanks to that AMOLED screen; a full multisport profile; daily workout suggestions based on your recent data, which proved a useful feature as a heavy workload's resulted in erratic training; and multi-satellite GPS that proved accurate in all three disciplines. A nod to the optical-heart rate sensor, too, which is generally regarded as one of the most accurate around.

But is it worth the price? Well, if you're seeking an upgrade from a lower-budget watch, yes. If you have the 955, it'd be hard to justify the spend on ostensibly a clearer display. **JW** *garmin.com*

86 %

VERDICT Impressive watch, but pricey and arguably not worth upgrading your 955

24 hr
25
VO2
52
1010
SAT 01
8:00
38
100%
GARMIN
LIGHT
START
STOP
BACK
DOWN
UP
FORERUNNER 965
GARMIN

> *"The AMOLED display replaces the 955's MIP display and it's a helluva change. The vibrancy and clarity of the data is next-level"*

ABUS GAMECHANGER

£189.99 ▶ *Does this aero road lid justify its bold tag?*

These two helmets look strikingly different, but both are far closer on the aero helmet spectrum than their visages suggest. The Gamechanger is about as aggressive as an aero road helmet gets, while Kask's Bambino Pro, is one of the more refined time-trial helmets. Abus' top-end aero road lid has been around since 2017, but will the lid age better than its name? It's always been divisive and that still stands in 2023.

The good is its extreme aero road focus, with rear thermal ports and a similar build to S-Works' long-standing Evade series, which *220* wind-tunnel tests have proven to be best in class. The 263g weight is decent enough for a lid with limited ventilation channels, while the ventilation is also satisfactory for something so speed focussed. And, while it's a cliché to rival the term game changer, it's a helmet that does feel fast on the roads (though we've never tested it in the tunnel to validate this).

It's under the lid where the Gamechanger really struggles, though, with minimal padding, a bare polystyrene interior and an ultra slim fit that saw wedges of exposed EVA foam digging into our skull. The ratchet system and straps also feel pretty basic for the £190 outlay, meaning it's high time Abus delivered a sequel. **MB**

extrauk.co.uk

64 %

VERDICT A clear aero focus, but there are far more comfortable lids around

AERO HELMETS

KASK BAMBINO PRO

£289 ▶ *Will this WorldTour TT lid find a niche in tri?*

Swapping the Gamechanger for the 340g Bambino Pro, you instantly notice how the ear coverings numb the senses, especially in regard to traffic noise if you're racing on open roads. Yet there's the internal comfort that's lacking in the Abus thanks to its dense 5mm padding, while Kask's faux leather chinstrap always impresses. The lack of a full-length tail adds versatility and less of an aero penalty if you move your head, with Kask promoting how the Bambino Pro, ridden by the INEOS Grenadiers WorldTour team, is aerodynamic in a variety of head positions.

A choice of visors offering unrestricted vision are available, with our clear set staying mist-free on some sweaty hill sets in early summer. The magnetic clips mean flipping it upside down is easy but doing so blocks the exhaust ports. And ventilation is where this Kask, like all TT lids, suffers when compared to vented road helmets. You'll need to ask yourself if the extra time saved by going for a TT over aero road lid (our tunnel tests suggest a saving between two and six minutes over 180km) are worth the danger of overheating.

If you go down the TT route, then this lid ticks the speed and internal comfort boxes. Just remember to practise putting it on/off at speed before race day (removing the visor helps). **MB**

kask.com

82 %

VERDICT One of the more comfortable TT lids around, just consider ventilation needs

HOKA MACH 5

£130 ▶ *A shoe for all occasions*

Hoka says the Mach 5 is the lovechild of the Mach 4 and Mach Supersonic, and pitches it as a 'lively pavement pounder built for performance and ready to race'. We'll address that in due course, but what we'll say first off is that the brand has done a fine job on aesthetics. There are at least 10 colour options for both men and women and the shoe looks incredibly sleek.

Comfort is high from the off, with the lightly cushioned ankle collar and lay-flat tongue ensuring no irritation for this tester. Fit proved to be true-to-size and the lacing system worked well with the heel counter to ensure a secure feeling. The lightweight upper hugs the foot nicely and offered impressive breathability in testing.

Underfoot comfort isn't quite as high as you'll find in more cushioned shoes, such as the Bondi or On's new Cloudsurfer, and we certainly wouldn't describe them as plush. However, if you don't mind a slightly firmer ride then you'll find the Mach 5 provides ample comfort. Plus, the low-profile cushioning, combined with the 5mm drop, arguably makes this shoe more responsive.

That brings us nicely onto the shoe's ride, which is pretty darn delightful. While not on the same level as you'll find in carbon shoes, there is an oomph to it, and when picking up the pace it feels smooth yet snappy. There's a useful amount of ground feel, too, while each foot strike felt adequately planted and stable. A weight of 252g per shoe (UK11) is decent, and only adds to the fleet-footed feeling when running, while we had no issues with grip, either. All this adds up to a shoe that would be at home both in training and on race day. **RS** *hoka.com*

88 %

VERDICT Comfort and a snappy ride combine in a lightweight package

HOKA
PROFLY+

MAURTEN
Hydrogel Sports Fuel
GEL 100
CAF 100

MAURTEN GEL 100 CAF 100

£38.50 FOR 12 ▶ *Worth the spend?*

Maurten's established a firm foothold in the competitive sports-nutrition market thanks to their hydrogel USP. Hydrogel's produced from alginate and pectin, and transforms into a jelly-like substance in the acidic environment of your stomach, which results in smoother transport of carbs to the intestine where they can be absorbed. It's why Maurten's opening gel salvo came in at 80g, though this is a more traditional 25g. Arguably that's better in the heat when feeding's more of a struggle. We've always enjoyed Maurten's neutral taste and it's the same here, even with a 100mg hit of caffeine. A couple of these and you'll tap into proven performance benefits including higher power output. Given the cost, we'd save for harder sections like 15-20mins before a climb. **JW** *maurten.com*

82 %

VERDICT Unique gel with great texture that flows smoothly, but pricey so use sparingly

MONTANE DART LITE

£35 ▶ *Recycled run tee*

We love that the Dart Lite is made from recycled polyester and, thankfully, it performs rather well too. Fit is true to size, but there isn't much slack around the midriff. The light material kept us plenty cool enough on warm runs and general comfort was also high, in part thanks to flatlock seams. Moisture-wicking and drying speed is reasonable, but we have seen quicker elsewhere. The Polygiene odour control is an added bonus, too. **RS** *montane.com*

83 %

VERDICT Great eco credentials and decent performance, but not quite class-topping

CREATIVE OUTLIER FREE PRO

£159.99 ▶ *New bone-conduction headphones, but are they sport-friendly?*

There has long only been one main brand in the bone-conduction headphone market – Aftershockz (now just Shokz) – and we've tested their 'Open Swim' headphones before in these pages, so it was hard not to directly compare these similar ones from Creative.

Like the Shokz, they work by sitting on the bone just in front of your ears with the loop over the top of your ears, so the sound is transmitted through bone conduction rather than through your ears. The benefit? You can still hear ambient sound and be aware of your surroundings, plus these can be used underwater.

On the whole, the features offered here look good. You get up to 8 GB of storage for music, with 10 hours of battery life when fully charged. They're Bluetooth compatible and also include a microphone for taking phone calls – a feature the Shokz don't include – so these would be a good choice if you're keen to use them for work calls as well as music.

We found sound quality to be okay, though it lacked the depth of other headphones and on some tracks it sounded a little tinny. Under the water, there's no second mode (as found on the Shokz, to enhance underwater sound) but the sound was still good enough to listen to while in the water.

There are a couple of drawbacks as a swimmer, though – the IP8 rating means they should only be used for 40 minutes at a time and they can't withstand salt water. You also need to plug the microphone hole with the included tiny plug – which was very easy to forget! **HW** *uk.creative.com*

67 % **VERDICT** Nice for general use, but as a swimmer they had a few limitations; also pricey

ABOVE BELOW BODYWARMER

£148 ▶ *Cosy post-swim extra*

Just when you think there can't possibly be any other additions to the post-swim armoury, Above Below (creaters of the Ruckraft) bring out this gilet. Designed for swimmers who want to move straight out of the water (such as on a swim/hike adventure) it's lightweight and lined with a recycled wool mix. Sizing is unisex, which didn't suit our curvier figure. If it fits though, you'll find it cosy, warm and a useful (if pricey) bit of kit. **HW** *abovebelow.sc*

75 % **VERDICT** Interesting idea but expensive, and the unisex sizing felt more suited to men

HUUB RYFT SWIM MASK

£39.99 ▶ *Wide-screen swimming*

Big swim masks are having what fashion folk would call a 'moment' right now, as can be evidenced by the top-end Aquasphere Ultra Defy on p14 this issue. Coming in at a fraction of the price, though, is this version from Huub. Starting at £24.99 (for a red and smoked lens version), here we have the top-end photochromatic version with blue and mirrored lenses. Our initial reaction was that although undeniably huge, this mask does look pretty cool in a ski-mask kinda way. The gasket is large and soft, while adjustment is by two large and handy buttons. In the water the clarity was superb, as was the changing lenses as the sun came in and out. We did struggle a little to get a seal and had some water ingress, but that may be down to face shape. **HW** *huubdesign.co.uk*

80 % **VERDICT** Great value and if you like a mask, this one offers top visibility and tech

SADDLEBACK
HOME OF PERFORMANCE CYCLING
KASK
SCOTT
Photos: Marcel Hilger
DESIGNED
FOR SPEED

AN EVOLUTION OF CASTELLI'S RECORD-BREAKING TRIATHLON SUIT. PREMIO-BASED SHORT FOR EXCEPTIONAL COMFORT AND IMPROVED AERODYNAMICS IN CROSSWIND CONDITIONS. CFD AND WIND TUNNEL TESTED, THE **PR 2 SPEED SUIT** IS HERE AND OPTIMISED FOR SPEED.

castelli

CASTELLI-CYCLING.COM

BBC

Science Focus

INTRODUCTORY SUBSCRIPTION OFFER!

HALF PRICE

ALL THE LATEST IDEAS, DISCOVERIES, AND BIG QUESTIONS ANSWERED...

Get *BBC Science Focus* delivered direct to your door for half the price when you subscribe! Every issue is packed with news, details of the latest discoveries and the breakthroughs affecting our future, helping you to stay up-to-speed with the fast-moving world of science.

~~£5.50~~
£2.75
AN ISSUE*

Subscribe today to *BBC Science Focus* for HALF PRICE!

VISIT: BUYSUBSCRIPTIONS.COM/SFHA23

PHONE: 03330 162 113[+] (PLEASE QUOTE SFHA23)

[+]UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) and are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). Outside of free call packages call charges from mobile phones will cost between 3p and 55p per minute. Lines are open Mon to Fri 9am-5pm. If calling from overseas please call +44 1604 973 721. *Offer ends 31 December 2023. Half price offer is only available to UK residents paying by Direct Debit. Subscriptions will start with the next available issue.

BUYER'S GUIDE

TRI-SUITS

Beginner, speedster or long-distance ace? Whatever your goals, you'll need a tri-suit to fit the racing bill

WORDS MATT BAIRD, KELLY STOKES, KATE MILSOM
IMAGE IAN BAKER PHOTOGRAPHY/OSB EVENTS

It's not as flash as deep-rim wheels. It lacks the carbon slickness of aerobars. It won't upload your splits to Strava and guide you home via GPS. And yet, alongside the bike, the tri-suit is the most important multisport purchase you'll make. It is, after all, your trusty companion from the pre-race warm-up until you leap/cartwheel/knee slide over the finish line and inhale that post-race burger.

Tri-suits began life in the 1980s with early triathletes and the brand Zoot pioneering the way by stitching pads into running shorts. The tri-suit soon developed into either ultra-tight and revealing or baggy and loose two-pieces by that decade's end. Their increased appeal wasn't just about benefitting the swim, bike and run, though, as another key advantage was the amount of time saved in transition by not having to change from swim-to-bike and then bike-to-run clothing.

Speedo launched the ground-breaking Aquablade suit in 1996, but the development of tri-suits has truly accelerated in the last half-decade. Tri designers are now fully aware of the hydro/aerodynamic gains offered by the once-humble suit, while a tri-suit will also give flexibility on the swim; storage options on the bike; and posture support, cooling and restriction-free running on the final leg.

But be aware that a poorly-chosen Lycra creation can cause you discomfort, drag and rigidity when racing, even nudging you towards that Did Not Finish (DNF) list on the result's page. So read on to discover the PB-busting, 2023 tri-suit for you… ▶

TRI-SUITS NEED TO KNOW

Sleeves or vested? Sprint or Ironman? Here are five key factors when picking your Lycra of choice...

GETTY IMAGES

Rules dictate that you shouldn't lower your zip further than the bottom of the breastbone when racing long

1 TRI-SUIT TYPES

Tri-suit types now number short-sleeved versions, classic sleeveless options, two-piece tri-suits (see 'reader questions' panel, right), tight speed suits, ITU-friendly suits with reverse zippers, and even thermal suits for races in colder climes.

Each sub-genre boasts (deep breath) various pad size options, different pocket types and placements, a number of material choices (a stretchy 20% elastane and 80% nylon mix dominates the suits on test here, but polyester is common on cheaper suits), compressive properties and more. Male and female-specific suits will also be cut differently to conform to different body shapes, while the aesthetics can differ between genders (thankfully women can now buy suits without a splash of pink somewhere!). Each type of tri-suit should perform in its chosen niche, but the versatility of short-sleeved suits at every triathlon distance ensures that's mainly what we're reviewing here.

2 SLEEVED VS VESTED

The last decade has seen the rise of the short-sleeved tri-suit, and they now largely dominate tri courses of every distance. There are still merits to vests, however, including unrestricted upper-body movement on the swim, no damp sleeves on the bike and a cheaper initial outlay.

The benefits of short-sleeve suits are plentiful, though, including increased hydro and aerodynamics (fabric is faster than bare skin), more sun protection, added warmth and, well, they just tend to look better for many of us (especially if you don't have arms like The Rock).

The advent of sleeved suits also saw the rise of full-length zippers, which open up at the bottom, making pre/mid-race toilet stops far easier, but remember that race rules dictate that you shouldn't lower your zip further than the bottom of the breastbone when on a middle/long-distance course, and must be completely done up on sprint and standard events.

> *"Taped seams, dimpled or pinstripe fabric and lengthy arms and legs can save you 60secs over a 40km bike leg"*

ZONE3
HUUB
SLEEVED
VESTED

3 SPEED MACHINE

"When asked what piece of equipment gives the biggest bang for buck when it comes to time-saving, I'll always say the tri-suit," Sebastian Kienle once told 220. The 2014 Ironman world champion is famed for leaving no stone unturned in the pursuit of marginal gains. "While it's inexpensive when compared to a set of aero wheels, it has a huge impact on aerodynamics," he explained.

Our own wind-tunnel testing has also shown the importance of a well-fitted suit, with the likes of taped seams, dimpled or pinstripe fabric and lengthy arms and legs saving triathletes 60secs over a 40km Olympic-distance bike leg (over 4mins in Ironman). A key stat to note when contemplating aero changes is that around 70-80% of aerodynamic drag is caused by the rider, with just 20-30% coming from the bike, so size carefully and you'll soon be reaping the aero goods.

4 GOING-LONG OPTIONS

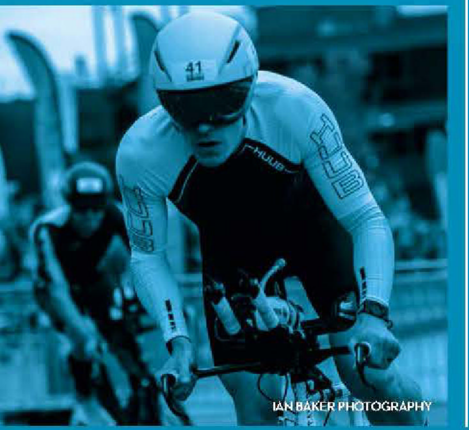
Racing long and unsure what suit to wear? First, decide what kind of athlete you are. Are aerodynamics worth the added costs that come with it if it means scooping the age-group honours? Or do you just want something comfy and capable of carrying up to 17hrs worth of fuel to the finish line?

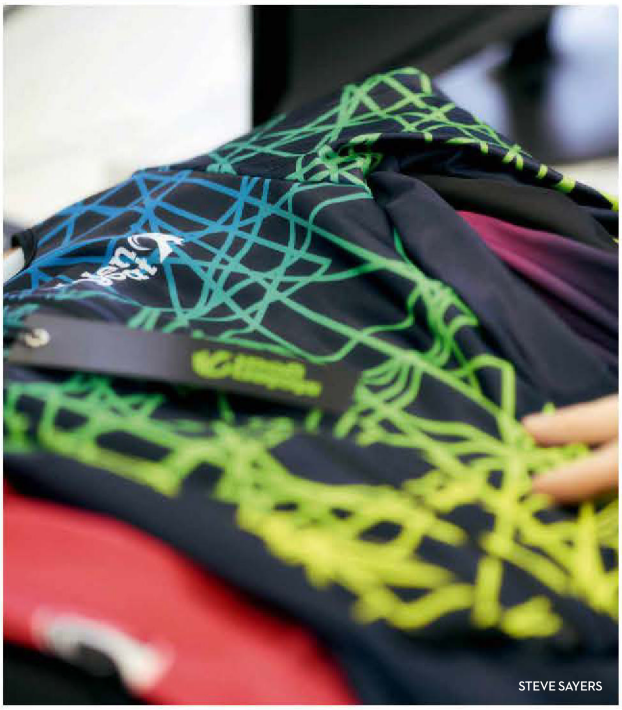
Whatever you decide, don't compromise on your tri-suit. You've spent hundreds on race entry and countless hours training, so don't be influenced by a suit because it's £25 cheaper or is better looking than the one that really works for you. That said, you'll want to look and feel good in your suit of choice for that finish-line photo, so aesthetics do play a role. If you can't visit a shop, do an online analysis of pocket and pad sizing, leg-gripper types and study the sizing charts carefully.

5 POTENTIAL PITFALLS

You'll be spending plenty of time racing in your chosen suit and something that bugs you on a 60-minute brick set will become a full-blown issue on race day. If you can get your hands on the suit before buying it, look out for any rogue internal seams. Also assess whether the suit has a decent zip guard to stop it rubbing on the top of your chest or lower neck.

Vented fabrics are great at giving a cooling effect on race day, but can offer minimal sun protection, especially if the swim leg has erased your suncream. Also, check whether the fabric is see-through on the chest or rear – a suit wet from the swim can leave little to the imagination!


IAN BAKER PHOTOGRAPHY


STEVE SAYERS

READER QUESTIONS

Q I'm on a tight budget – what can I get?

A There will inevitably be compromises when buying a cheap sub-£50 tri-suit, but there are plenty out there that punch above their fiscal weight. The finishing quality can be lacking a touch, the polyester can be slower to dry than suits made with elastane and any hints of aerodynamics are limited. But you might get some decent grippers trickling down from higher-priced suits, a solid chamois for shorter sprint and Olympic-distance bike legs, and a pocket or two for stashing an energy gel or bar. Go longer than the 1.5km swim/40km bike/10km run of Olympic-distance tri, however, and we'd recommend spending more than around the £75 mark. Wiggle and Decathlon are good places to start for a budget suit, but also keep an eye out for sample sales from brands.

Q What's a two-piece tri-suit?

A Once ubiquitous but now marginal, two-piece tri-suits (Google Faris Al-Sultan for the classic two-piece visage) are separate padded shorts and zipped top. The benefits are that you can buy a different-sized top or bottom to secure your closest fit, while mid-race toilet stops are a doddle. Negative points include an aerodynamic penalty from fabric bunching at the waist; they're not ideal for the swim (you can swim in the shorts and don the top in T1); and the top can ride up/or the shorts sag down to reveal both belly and/or bottom to your race rivals (or watching family). Improved hem tech has improved the latter, however, while they offer more versatility for training sessions than a conventional one-piece tri-suit does.

Q Should I wear anything under a tri-suit?

A The soft nature of a tri-suit's pad means that you shouldn't need to wear any pants underneath it, as doing so could increase chafing and create breathability issues. Many women's suits have an in-built bra but wearing a sports bra can provide extra support and protect your modesty better than the tri-suit alone, especially if the design becomes slightly transparent when wet. For run/bike/run duathlon racing or when performing in colder climes, a base layer under a tri-suit is a smart option.

PREMIUM & BUDGET

From £40 to €1,000, tri-suits vary hugely in price. Here are picks from both extremes...

PREMIUM

SURPAS INSANE TRI-SUIT €1,000

Given it's the tri-suit worn by Kristian Blummenfelt and Gustav Iden, you know it's going to be stacked with tech. It attempts to balance aerodyamics, hydrodynamics, heat dissapation, flexibility and fit, and must work well based on recent results. ***surpasofficial.com***

BUDGET

APTONIA SHORT-DISTANCE £39.99

There are a few negatives – the limited leg grippers, short legs and having just a single back pocket – but this is a winning purchase for beginners on a tight budget due to its leg pockets, vented spine and effective zip guard. Try and visit a store to size it up. ***decathlon.co.uk***

HUUB ANEMOI 2 22PLUS

● **Speed-focussed suit targeted at bike speeds over 22mph**

£299.99

We've been lucky to spend time in wind tunnels over the years and have seen first-hand how some products, notably aero road helmets, perform better at higher speeds than others, and vice versa (and that's before we get into how yaw angles affect a product's aerodynamics). Derby's Huub Design has taken note and applied this to tri-suit design, spending three years on R&D before releasing two suits in 2023's Anemoi range, the Sub22 and Plus22, constructed with different fabrics and designed to be more aerodynamically optimal at speeds under or over 22mph (35kmh).

> **"THE CHAMOIS IS SUPPORTIVE ENOUGH FOR MULTIPLE HOURS IN THE SADDLE AND IS PROBLEM-FREE ON THE RUN LEG"**

This tester rarely hits speeds of 22mph in a car let alone on the race course, but for a mid/back-of-the-pack triathlete we welcome the Anemoi's flatlock seams for chafe-free comfort and winning flexibility on such an aero-focussed suit, especially on the shoulders when swimming. The upper-body ventilation is impressive, while the full-length zipper garage keeps chest scratches at bay.

The aero goods include pinstripes on the sleeves and lengthy laser-cut legs. (There's a £349.99 Anemoi 2 version with fully-bonded seams developed by aerodynamicist and record-breaking track cyclist Dan Bigham – seams that are said to save an extra four watts over the standard Anemoi suit). The silicone grippers on the legs tended to flay out a little on the lower legs on the bike and run, though, while it is a tighter fit below the waist. This Spurs fan personally likes the white and navy-blue colourscheme, but the white frontal area became see-through when wet to reveal some lovely belly hair.

The chamois from Croatian brand YBC continues the innovation. It essentially consists of three plump gel inserts (one that sits under each cheek, one under the perineum) that elevate the rider above the saddle, reducing weight and increasing the quick-drying abilities by ensuring there's no wasted padding elsewhere. It achieves that balance of being supportive enough for multiple hours in the saddle, yet staying problem-free on the run leg, and is a pad that we'd happily see more brands utilise. Some grippier outer fabric to stop slippage on the saddle wouldn't go amiss, however.

The tiny duo of rear pockets, barely able to hold a gel each, aren't ideal for anyone wanting to carry much nutrition, however. Alongside the Zone3, it's the only suit on test here that doesn't have a breakaway zipper at the front, increasing aerodynamics but making it harder to pee mid-race, although the zip being relatively low helps. So, while we're self-aware enough to admit that this suit is wasted on us, the extensive development and innovative approach to design make it a strong contender for both short- and long-course speedsters. And, given everything that's gone into it, that price tag doesn't actually feel too bad.

HUUB
ANEMOI 2
22PLUS

220 TRIATHLON CUTTING EDGE

AT A GLANCE

- **THE 22PLUS IS AIMED AT SPEEDS FASTER THAN 22MPH ON THE BIKE**
- **MALE/FEMALE? THERE'S A WOMEN'S-SPECIFIC SUB22 TRI-SUIT, BUT NO PLUS22 ON SALE AT THE TIME OF WRITING**
- **WANT MORE SPEED? SEE THE £350 ANEMOI 2 WITH FULLY-BONDED SEAMS**

85 %

VERDICT

Innovation and comfort combine, but we'd like to see a zipper and gripper update

ZONE3 AEROFORCE X II

● **Can this sequel outshine the stellar original?**

£299

AT A GLANCE

- ● THE AEROFORCE X II HAS BEEN DESIGNED WITH SPEED SPECIALISTS NOPINZ
- ● TWO WOMEN'S VERSIONS ARE AVAILABLE IN THE SAME BLACK OR NAVY COLOURS
- ● FIVE SIZES ARE AVAILABLE, FROM XS TO XL

The Tron-esque graphics might say otherwise, but there's nothing retro about this techy follow-up to the Aeroforce X, which stormed our 2020 wind-tunnel tests at the Silverstone Sports Engineering Hub with the Bike Tailor at the 0, 5 and 10° yaw angles. That landmark suit for the Surrey brand (who'd never before produced a truly top-end performance tri-suit), designed with input from aero specialists Aerocoach and Nopinz, boasted a duo of covered rear pockets and hydrophobic materials for slick swim action, dimpled sleeves and pinstripes for on-bike gains, and decent rear venting for the run leg.

Those features remain in 2023, but what's new this season, apart from those Casio digital watch graphics (which, as a child of the 80s, we really like), is the Speedscalez textured fabric on the legs, which has been designed by Nopinz to disrupt airflow (in a good way) and offer core support to the leg muscles. Zone3 also touts the Aero Soft-Touch material on the front for speed gains, but it's in the pool where we felt the most benefits here, evidently beading water throughout our swim sessions. Visually, it looks stealthy and slick, but there's also a navy version if you want something a touch lighter.

> **"WE'D RECOMMEND THIS SUIT FOR OLYMPIC-DISTANCE AND NO LONGER THAN 70.3 RACING"**

It's not all positive, however. We'd prefer the frontal zip to break away fully at the bottom for added comfort and convenience on longer races (admittedly there's an aero penalty here), while the zip guard is pretty minimal and has a tendency to flip away from the zipper head, making it redundant. Fit is subjective but we did find it tight around the crotch and the rear of the collar was a little loose and floaty, which may well have disrupted some of the aero gains achieved elsewhere. The tacky leg and arm grippers keep both leg and arm sleeves secure on the limbs, but we do have durability concerns about how long this stickiness will last.

The big issue is that the Elastic Interface chamois that's been specced is, for this tester, just too minimal for long-distance triathlon and extended sojourns on the aerobars. While speedsters will undoubtedly be in the saddle for less time than us, for whom Ironman is about completion over competing, the minimalist pad and no option to select another when ordering feels like a missed opportunity.

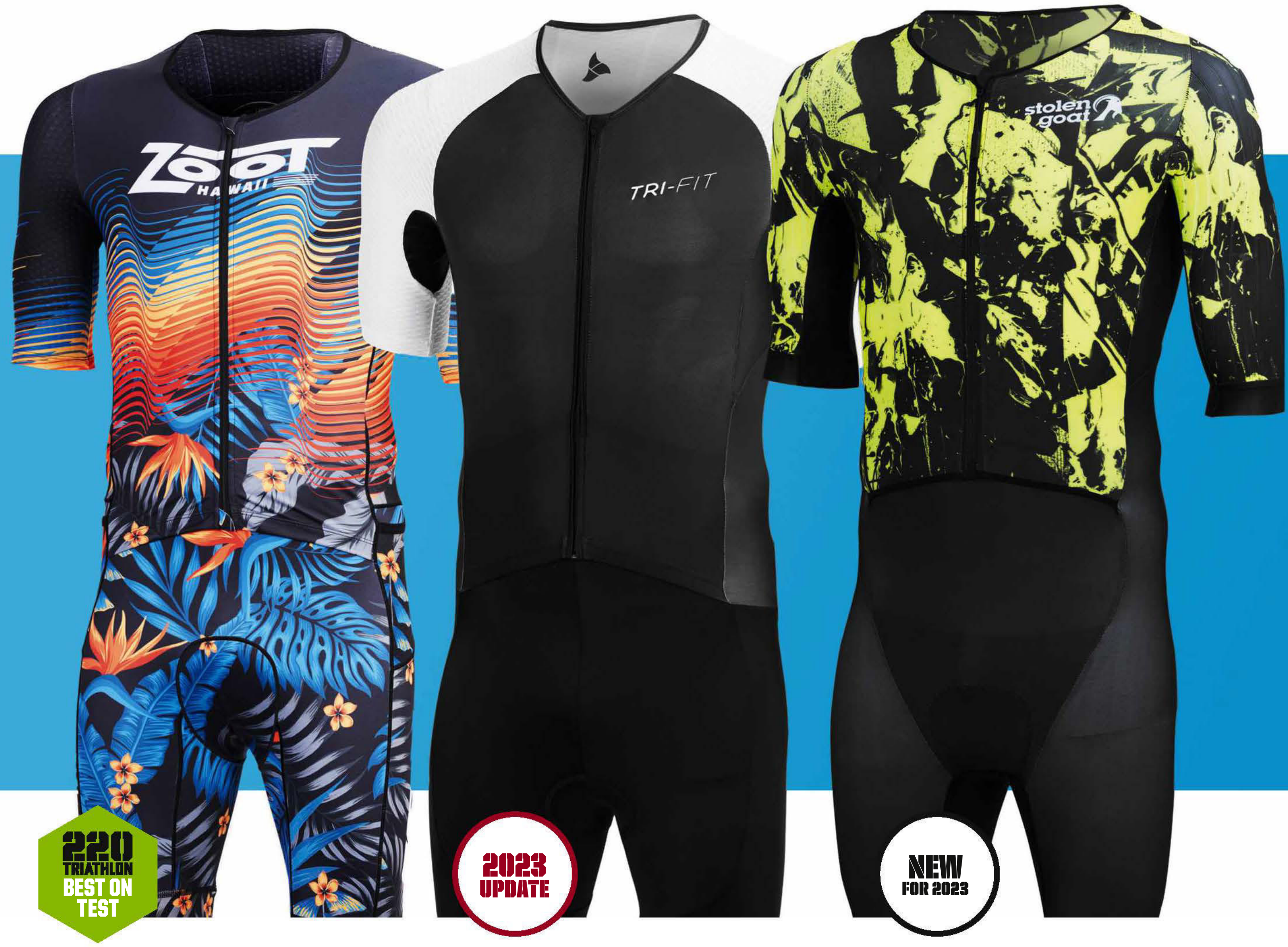
Combined with the lack of a full-length zipper, we'd be most likely to recommend this suit for Olympic-distance and no longer than 70.3 racing, ideally with a non-wetsuit swim at the start to maximise the hydrophobic materials, upper-body flexibility and covered pockets. And, with the fruitful Nopinz collaboration continuing and a wealth of new materials in use, there's nothing here to suggest that it won't excel in the wind tunnel the next time we can scoop ourselves a session.
zone3.com

85 %

VERDICT
Proven aerodynamics and future-focussed materials, but limited pad size

AERO:
FORCE:
X
ZONE3
220 TRIATHLON
CUTTING EDGE

IMAGES STEVE SAYERS & KADEN GARDENER



ZOOT TRI LTD AERO RACESUIT

£225 Zoot was the original tri-suit pioneer back in 1983 and this suit marks the 40th birthday since Kona resident Christal Nylin started sewing pads into run shorts. That Hawaiian heritage is evident in the visual onslaught, which we think stays just the right side of kitsch. But the key takeaway is just how darn comfy this suit is, with a soft Italian chamois with an attached 'modesty liner', internal flatlock seams and the smoothest material this side of Barry White. There's also a large kangaroo-style back pocket and two side slots for gels, plus the best grippers on test. Sadly they still haven't sorted the minimal zipper guard, but the full-length zip makes this a solid choice for mid-event convenience. The sizeable rear mesh fabric and ice pocket also give it summer racing appeal. *zootsports.co.uk*

90 %

VERDICT Ultra comfort and slick materials, but can you pull off the look?

TRI-FIT EVO 2.3

£235 Multiple incarnations of Tri-Fit's Evo have swiftly racked up plenty of 220 award badges in the past five years. Perhaps understandably, the brand takes an 'if it ain't broke' approach with the Evo 2.3. The smooth Italian materials, wind-tunnel tested fabrics, understated looks and side-entry rear pockets are all present and correct, although it's not the easiest removing larger gels from the latter. In terms of upgrades, the leg pockets are no more, the pinstripes on the sleeves have been replaced by dimples, while the leg grippers are now some of the most quietly effective you'll ever find. Less positively, the Elastic Interface pad has pretty limited padding for going long, there's a slightly scratchy zipper head and minimal guard that bugged me on the run, and the crotch area leaves little to the imagination. *tri-fitathletic.com*

83 %

VERDICT More evolution than revolution, but still a silky and swift contender

STOLEN GOAT REMIX

£160 As we've come to expect from Stolen Goat, this tri-suit will make you visible on course with its splattered paint design on the front and rear. The pattern is also evident on the effective leg grippers and pinstripe sleeves – a nod to aerodynamics (saving you 8-10 watts per sleeve, says SG) – and the deep and accessible pair of rear pockets. SG doesn't target this at any specific race distance, but we'd go no longer than Olympic due to the slender pad – while it's invisible on the run, we'd want more under our bottom for 70.3 and longer. There's a nice array of sizes, a full-length zipper garage and a lifetime guarantee, but we found the fit less than flattering due to the high-cut frontal area. The result left this tester's paunch on display below the zip, which is less than ideal given the attention-seeking graphics. *stolengoat.com*

72 %

VERDICT Decent enough for short-course tri, but pad and paunch concerns

NEW
FOR 2023

ORCA APEX DREAM KONA

£279 The Apex is a sequel to Orca's RS1, and the brand has again thrown all its aero bells and whistles at this new suit. The hydrophobic, water-beading fabric would be our pick here for any pool or non-wetsuit swims, while the textured tunnel-tested materials and streamlined fit (go up if you're between sizes) highlight the drag-reducing prowess. It's lean and lightweight, the full-length zipper is great, but there's also the matter of a scratchy zipper head and the upper leg fabric bunching a little at the very top of the thigh. Maybe the elite racers who devised the suit have tougher bottoms than us, but we'd personally go no further than Olympic-distance tri in the Apex due to the barely-there pad. For a short-course, non-wetsuit blast, however, we can think of few suits more slippery. *orca.com*

83 %

VERDICT Superb for shorter races, but we'd question that Kona billing

220 TRIATHLON
CUTTING EDGE

CASTELLI PR 2 SPEED SUIT

£350 Castelli's original PR was a techy wonder that saw Aussie Cam Wurf break the Kona bike course record in it, and the Italians haven't strayed far from the original's template. The lithe but effective laser-cut legs and arms, supportive pad and ribbed aero sleeves are all present and correct, as are the sizeable but swim-friendly duo of rear pockets. We much prefer this new blue version over the see-through orange of V1, and again it sits on the body like a second skin without being restrictive on the swim, bike or run, while staying wrinkle-free. Admittedly, it does feel very delicate, so we'd treat it nicely, save it for race day and avoid any off-road excursions where beastly thorns may lurk. There has, however, been a £50 rise in price, making this one of the most expensive tri-suits ever produced. *castelli-cycling.com*

87 %

VERDICT A techy, speedy and supple wonder… if you can afford it

2023
UPDATE

TRIMTEX AERO 3.0 SPEEDSUIT

€359 Norwegian tri superstar Kristian Blummenfelt has worn this suit to record-breaking Ironman 70.3 glory in Bahrain, so we can be content it provides the aerodynamic goods on the race course. Lengthy arms and legs, dimpled mesh fabric on the shoulders and pinstripe legs all display this aero awareness, while the side-entry rear pockets give a non-wetsuit swim boost. Improvements over the last version include a full-length zipper guard and a neater finish around the pad. That pad is admittedly pretty firm, but it felt supportive on long stints in the saddle and seemed less noticeable on the run. We'd still prefer to see flatlock seams internally for the fiscal outlay, however. Once again, the leg gripper bands are superior, those side pockets are sizeable and secure, and the visuals are solid. *trimtexstore.com*

82 %

VERDICT Delivers the aero goods, but the outlay is sky high

IMAGES STEVE SAYERS& KADEN GARDENER

220 TRIATHLON
BEST VALUE

ZONE3 LAVA

£219 The Lava range has been around since 2013 and we can see why it's been a hit. It not only looks stylish but packs in lots of performance-enhancing features. Drag-reducing Aero-Stripe arms offer enhanced aerodynamics, while the balanced compression in the legs provides muscle support to help improve endurance and stamina. The Aeroforce Soft-Touch fabric gives a touch of luxury, with that barely-there feeling offers flexibility and breathability, all while providing 50+ UPF protection. Comfort is also taken care of with the female-specific pad providing targeted pressure-point relief on the bike while remaining unobtrusive during the swim and run. A close fit and 360° stretch means no compromise in movement and plenty of freedom around the hips and waist. We could wear this all day. *zone3.com*

89 %

VERDICT Ticks all the boxes, offering performance, comfort and style in droves

VAN RYSEL LD TRISUIT

£69.99 Decathlon's visually-appealing design is perfect for those operating on a budget. The lightweight, breathable fabric offers plenty of flexibility with a soft neckline to ensure all-day comfort, though the light colour around the chest means wearing a bra is a must! Though lacking the aero features of pricier models, the female-specific design adapts and stretches around the natural curves of the female body, giving freedom of movement in all disciplines. Storage options were great, with a deep pocket on each leg and a further two on the back, allowing plenty of capacity for any event. The slimline chamois was perfect for the swim and run but felt a bit too narrow for our wide-nosed saddle. However, our main criticism was the stiffness of the leg and arm grippers, which both began to irritate in time. *decathlon.co.uk*

78 %

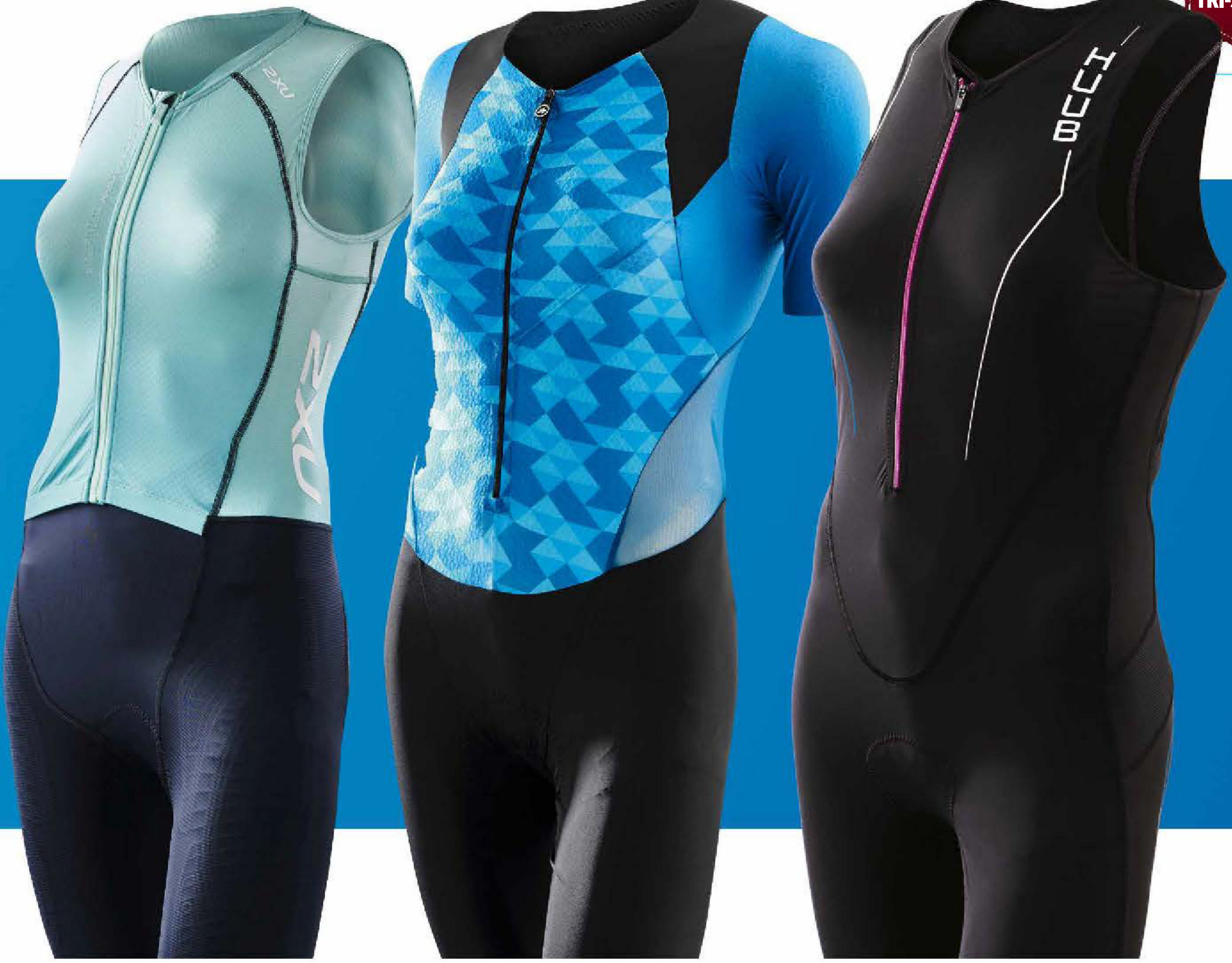
VERDICT At this price point it's a great entry-level option with unbeatable storage

DHB AERON LAB

£200 Hailed as a second skin, the Aeron Lab feels ultralight and ultra-sleek. The closefit design, combined with aero-disruptive fabric on the arms, shoulders and legs, aims to provide maximum speed for minimal effort on the bike. The suit offers complete flexibility with the neckline and grippers seamlessly blending into the body to enhance freedom of movement. However, at 5ft 8in, we wouldn't have wanted to be any taller, so sizing up may be required for longer bodies. Three big rear pockets offered generous storage and the chamois pad kept us comfortable all day on test. On initial wear, the internal seams were irritating to the skin, but these softened in time and didn't provide any further issues. It's worth noting the legs are shorter than others on test, which may or may not be to your taste. *wiggle.co.uk*

85 %

VERDICT Lacks compression support, but this is a light, flexible and stylish suit



2XU LIGHT SPEED TRISUIT

£150 Bucking the long-sleeve trend, this sleeveless design targets heat control and muscle stabilisation. The UV protective fabric claims to reduce heat absorption from the sun, improve airflow by almost 200% and provide enhanced aerodynamics. In testing it felt lightweight and breathable, aided by the open-cut under arms and neckline, giving the feeling of freedom even during the hot sessions. Targeted compression claims to dissipate load transfer on the knee while running which, in practice, made our quads feel well-supported. The chamois felt stiff at first but proved comfy afterwards and gave us no issues on the run. The two rear pockets were disappointingly small, though, and we found the split front design cut in on our stomach and pulled up when standing, so taller athletes may want to size up. *2xu.com*

83 %

VERDICT Poor storage, but provides decent freedom and flexibility on race day

ASSOS TRIATOR SS SPEEDSUIT

£390 Assos made a bold debut into the premium tri market with the attractive Triator Speedsuit. It's clear from the chamois that this is a suit designed by people who spend time on bikes, offering a perfect blend of comfort and minimalism for long-distance racing. The suit itself feels like a second skin, with honeycomb textured arms for enhanced aerodynamics and a scooped neckline which offers zero restriction. Our only gripe's the shoulders being set a little too narrow, which caused some tightness on the swim. The ultralight material dries exceptionally fast, with vented sides aiding heat dissipation and a special ice pocket in the neck for cooling during hot racing. We like the graduated leg compression, offering all-day support, and in addition to two rear pockets, the suit has two small pockets hidden inside the front. *assos.com*

87 %

VERDICT This suit oozes quality; a real luxury item for those who can afford it

HUUB AURA TRIATHLON SUIT

£139.99 The Aura is proof that simple but effective is sometimes the way to go. It's a good pick for racing in hot climes thanks to mesh panels across the lower and middle of the back, along with the 'Coldback temperature management coating' with UPF30 which aims to deflect heat and protect skin from the sun. The relatively thin but comfy, female-specific chamois and two envelope-style rear pockets that fit up to three gels each are suitable for distances up to half-iron at a push, but we'd want a little more padding for longer. The 15cm leg inseam's also among the shortest here, while the silicone leg grippers are comfy but not the most secure. We felt comfortable and at ease in this classy black suit, the fit across the chest also providing just enough support for the run leg (on small busts). *huubdesign.com*

89 %

VERDICT Smart, flattering design with features primed for hot racing conditions

IMAGES STEVE SAYERS& KADEN GARDENER

BUYER'S GUIDE

MEN'S BIKE JERSEYS

Looking to add a new jersey to your kit drawer for the months ahead? We test five different options…

WORDS ROB SLADE, JAMES WITTS **IMAGES** STEVE SAYERS

CASTELLI AERO RACE 6.0

£125 This is the sixth iteration of Castelli's Aero Race Jersey, with each version said to benefit from better aerodynamics and fit. That's a lot of development, and this jersey has even been privy to CFD (computational fluid dynamics) analysis in order to inform fabric choice and seam placement. The fit is close (size up if you're between sizes), particularly on the arms, and feels aerodynamic, yet comfort is also great with unrestricted range of movement and the large zip guard does its job well. In testing, the jersey offered excellent breathability and moisture wicking, thanks in part to the incredibly lightweight fabric, making it well-suited to summer. Three standard rear pockets are spacious and there's limited sagging, but when empty the rear hem does ride up a little, so a more substantial grippy section would be appreciated here. **RS** *castelli-cycling.com*

88 %

VERDICT It's not cheap, but it offers top-class performance

220 TRIATHLON BEST VALUE

CRAFT CORE ENDUR LOGO M

£47 If you want to fall down a rabbit hole of polyester, click on Craft's website. You're confronted by a huge collection of sports apparel including tops from padel tennis to Nordic skiing. This eclectic offering's in the company's DNA as they arose in the 70s by designing and manufacturing base layers for Swedish fighter pilots. In short, they know a thing or two about kit. But are they becoming a jack of all trades…? Not with the Core short-sleeve jersey, which is a solid offering. It's a regular fit, which is fine in our books for most ride-outs. A doff of the bike cap for their eco credentials as the jersey's constructed from 100% recycled polyester, which wicks sweat away nicely, while the full-length zipper offers further venting options. Three back pockets are plenty for gels and the like. The only moot point is the double-edged band at the hem, which could be ever-so firmer for a more secure fit. It comes in seven colours and in sizes small to XXL. **JW** *craftsportswear.com*

81 %

VERDICT This is a solid cycle tee at a solid price

ENDURA PRO SL S/S

£94.99 Endura's six-year partnership with Spanish cycling team Movistar, which finished in 2019, saw the Scottish outfit add an aerodynamic edge to their range that was arguably missing from their more utilitarian beginnings. They spent many an hour in the wind-tunnel with aero expert Simon Smart to transform both their image and range. This streamlined evolution's seen in the Pro SL as its form-fitting nature is for the triathlete who carries little weight and big ambition. The cut works with your movements between aerobars and hoods thanks to 12% elastane added to 88% polyester. Silicone grippers outback prevent things riding up, albeit the short front feels a touch shorter due to no gripper, which can leave you a touch exposed at mid-ride fuelling stops. Still, arguably this is for high-performers with excellent breathability enhanced by underarm and upper-back holed vents. Three rear pockets are good for storage, plus there's an appreciated extra zip pocket for keys, etc. **JW** *endurasport.com*

80 %

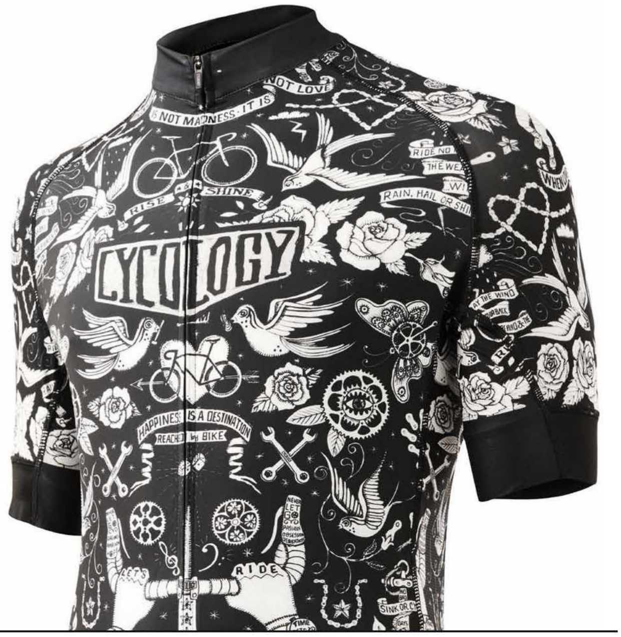
VERDICT For high performers looking for an aero edge

CYCOLOGY VELO TATTOO

€89.90 The name says it all – this is a tats-inspired cycle tee that'll flow seamlessly if your forearms are tattooed. Or if they're shorn of tattoos, too, perhaps, albeit the busy nature of the design was a little too congested for this tester's reserved palette. Still, the aesthetic will appeal to many – and the fit and function will appeal to many more as this is a top that arguably performs better than expected. It's close-fitting but not so intense that it results in tourniquet. An 85% polyester/15% elastane mix results in a top that both wicks sweat proficiently but allows your upper body to move without inhibition. That's helped by the four-way stretch panels. A rear silicone hem gripper keeps things tidy while, unlike the Endura, the front's low enough to preserve your modesty. Three rear pockets are appreciatively deep… but not appreciatively high as reaching for gels requires a degree of contortion. A zipped security pocket completes a very good offering. **JW** *cyclogygear.eu*

81 %

VERDICT Looks divisive but function is more impressive than anticipated



220 TRIATHLON BEST ON TEST

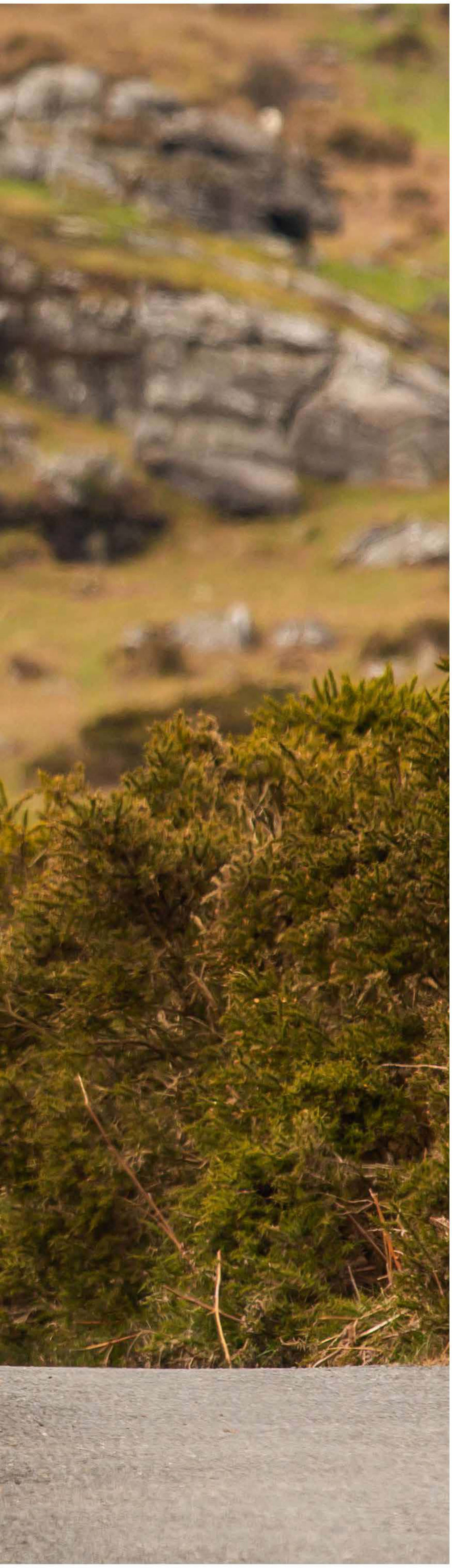
TRIMTEX PRO 3.0

€129.90 As demonstrated by the Norwegians over the past 18 months, keeping your core temperature stable and low can help deliver big performances. Trimtex has played a key role in that and the expertise is on show with the Pro 3.0. The jersey feels incredibly light, almost as if it's hardly there. The perforated, recycled fabric is a mix of polyester and elastane which, combined with even lighter panels under the arms and at the lower back, ensures some of the best ventilation and breathability we've experienced on warm days. A close fit helps reduce drag while offering very good moisture wicking, yet the jersey doesn't feel suffocatingly close like some others can. A plush zip guard helps boost comfort, there are three classic jersey pockets for storage and the large grippy patch on the rear hem does a good job of keeping the garment in place. While we've not had any issues so far, our only concern is about the jersey's long-term durability, especially when it costs as much as it does. **RS** *trimtexstore.com*

90 %

VERDICT High comfort and breathability make this an excellent summer jersey

FEMME FATALES



WORDS KATHERINE MOORE **IMAGES** SAM VOADEN

TEMPTED TO GO ALL IN FOR A WOMEN'S-SPECIFIC BUILD FOR YOUR NEXT ALL-ACTION ROAD BIKE? WE PUT TWO FEMALE-SPECIFIC OPTIONS FROM SCOTT AND LIV TO THE TEST ON THE ASCENTS OF DARTMOOR TO FIND OUT

Should you opt for a female-specific bike over a universal one? Due to each of us being our own unique shapes and sizes, the answer is likely to be different for everyone. What is clear, though, is that it's worth trying out a few different options to help you make that decision.

If you've gone through that process and decided female-specific is the way you want to go, it's time to start shopping. To help you on that journey, we've put two options to the test. Both of these bikes sit in what's now the mid-range market, beginning at £2,499 and heading up to £3,699. As this price point, the Scott Contessa Addict 25 and Liv Avail Advanced 1 both offer carbon frames, while the Scott comes with a mechanical Shimano 105 groupset and the Liv comes with Shimano's electronic 105 Di2.

But just what makes these women's bikes? Well the Scott is built in sizes starting from a XXS 47cm frame with a female-specific saddle and colour scheme. The Liv, meanwhile, is designed using unique geometry based on women's-specific fit data and is specced with a Liv saddle designed for female riders. Now, on with the testing... ▶

Scott Contessa Addict 25

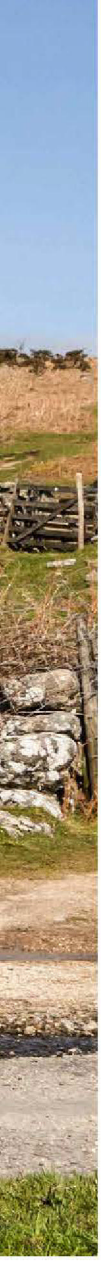
Part of Scott's women-specific Contessa range, the Addict 25 has the same endurance-focused frame geometry as the unisex Scott Addict, but is built with a women's-specific saddle and is available in five smaller sizes.

It offers great value for money for a bike that gives a comfortable, reliable and lively ride. Its frame boasts internal cable routing and, unusually for a carbon road bike, hidden mounts for mudguards. The geometry is towards the racier end of endurance road bikes with a fairly short wheelbase and a relatively steep 72° head angle.

The Addict 25 is built up with 11-speed mechanical Shimano 105 R7000 for the most part, and finishing kit and wheels are all courtesy of Scott's in-house componentry brand, Syncros. It rolls on shallow 24mm wheels shod in Schwalbe's One tyres. There was barely anything we could find that warranted improvement, especially given the Contessa Addict 25's reasonable price tag, except that the tyres aren't tubeless-compatible.

> "While it's marketed as an endurance bike, the Contessa Addict certainly doesn't feel like a slouch, and we wouldn't think twice about racing on it"

The Addict 25 offers the ride feel you'd expect from a well-designed carbon road bike. On steeper climbs you can easily pass the bike from side to side as you push on the pedals out of the saddle and it responds well to being ridden at pace. Though not the lightest bike, it's a very good benchmark for performance at this



Our tester appreciated the grippy, durable bar tape, 32mm-wide tyres and internal cable routing

price point, and feels light, nimble and responsive while riding. While it's marketed as an endurance bike, the Addict doesn't feel like a slouch, and we wouldn't think twice about racing on it.

The wide gear range is a real boon for steep climbs and another enabling factor is the 32mm-wide tyres. Those extra few millimetres of rubber not only inspire extra confidence, but also give that little bit more cushion, which boost the comfort factor.

Moving up to the cockpit, the 38cm bar width on this Small frame feels spot-on, and it's wrapped in a grippy, durable bar tape. It also features a lovely shallow drop so you don't have to lurch down into the drops when you need to get aero. This tester also got on well with Scott's women's-specific saddle.

As a first carbon road bike for a keen rider, who's also not shy to kit up with full mudguards and push on through all weathers, the Contessa Addict 25 will be hard to beat. Sure, you can upgrade some of the weightier parts down the line, but as it stands it's plenty capable enough for miles upon miles of enjoyable riding. ▶

SCOTT CONTESSA ADDICT 25 £2,499 SCOTT-SPORTS.COM

SPECS

Weight 8.6kg (S)

Frame
HMF carbon

Fork
HMF carbon

Gears
Shimano 105 R7000, 11-speed (50/34t, 11-34t)

Brakes
Shimano R7070 hydraulic disc

Wheels
Syncros RP2.0 Disc

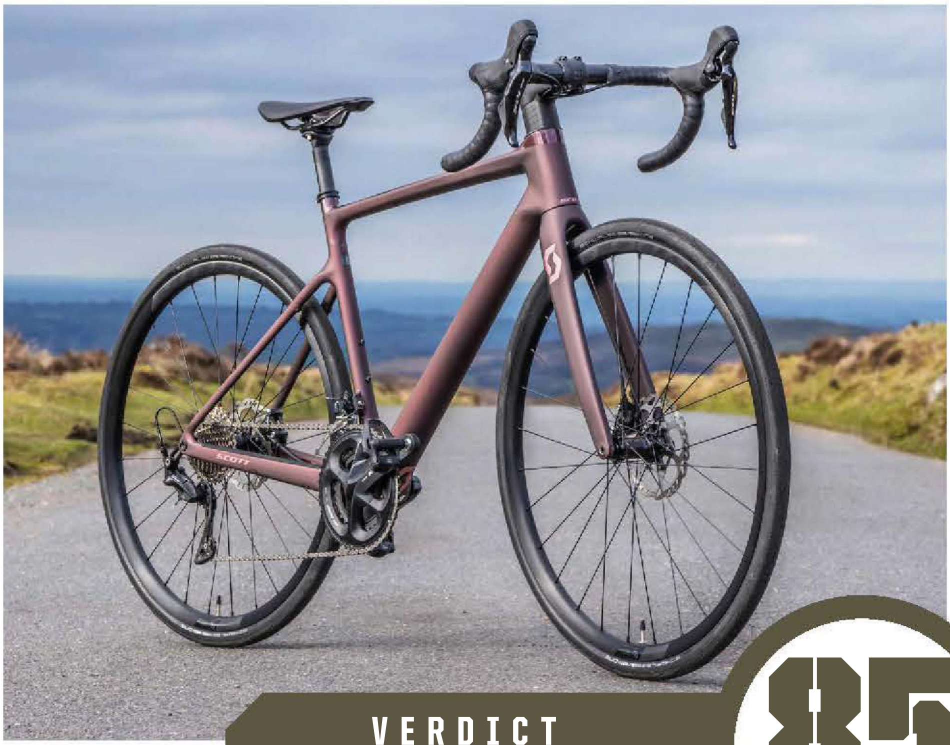
Finishing kit
Syncros RR2.0 stem, Syncros Creston 2.0 Compact bar, Syncros RR1.2 seatpost, Syncros Celista 2.0 saddle, Schwalbe One 700x32c tyres

HIGHS

Responsive ride feel; ergonomic handlebars; great value

LOWS

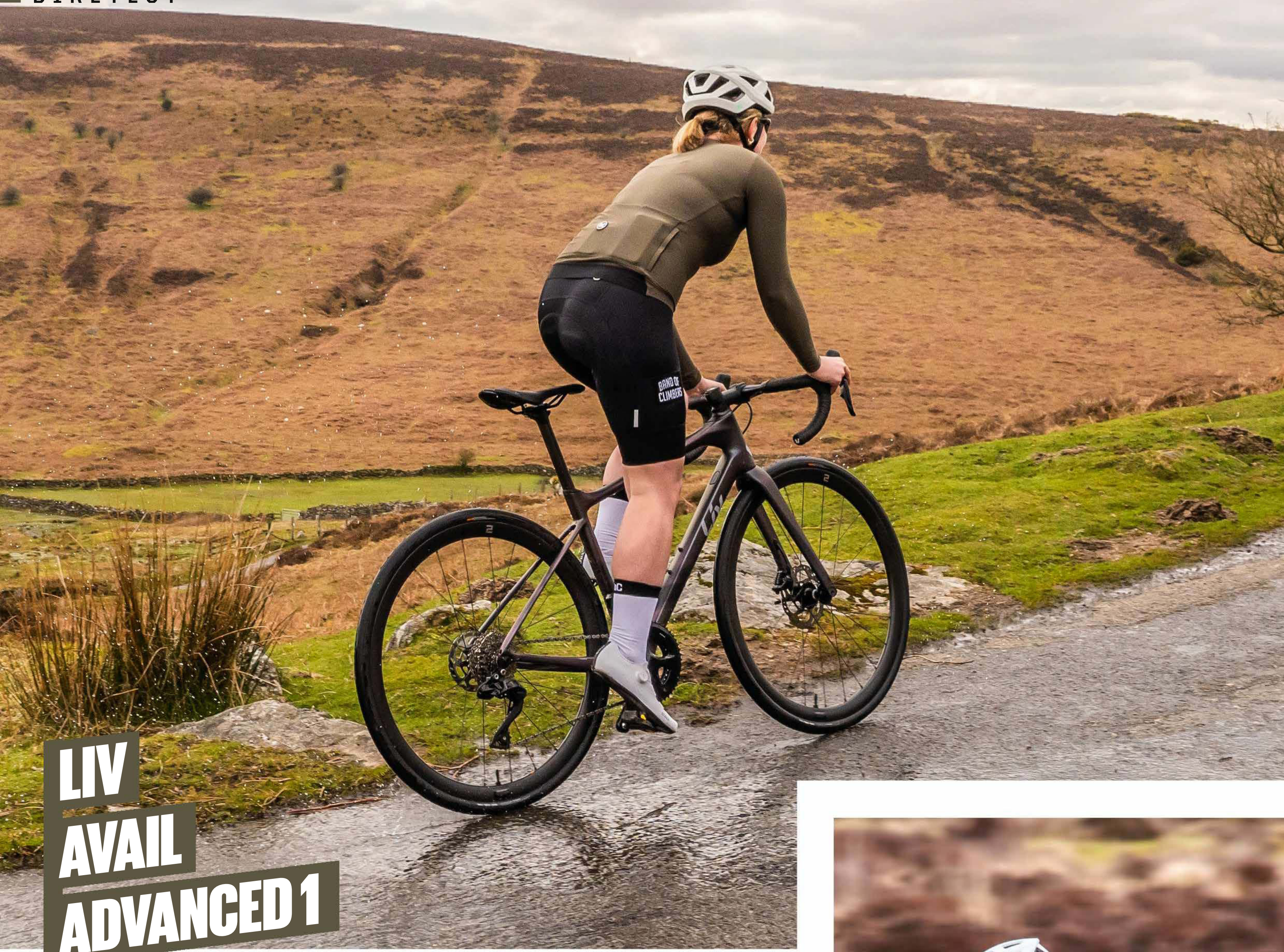
Non-series chainset and bottom bracket; tyres not tubeless compatible



VERDICT

WELL-CONSIDERED BUILD OFFERING A LIVELY YET COMFY RIDE, ALL AT A SMART PRICE

85%



LIV AVAIL ADVANCED 1

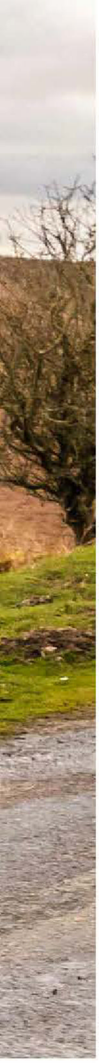
The Liv Avail Advanced 1 is the women-specific brand's endurance road bike, sitting alongside the aero-optimised Liv EnviLiv and race-ready Liv Langma. While the Avail offers geometry based on female-specific fit data, the design is largely equivalent to the award-winning unisex Giant Defy.

Like the rest of the Avail range, the Advanced 1 is made in-house using Liv's standard 'Advanced-grade' carbon fibre composite. Cables and hoses are routed internally through the frame, but externally of the stem and handlebar. A seatstay bridge is supplied so you can fit full mudguards if you wish.

The bike's compact frame design with a slanted top tube gives a smaller front triangle, claimed to improve the stiffness-to-weight ratio. The 71.5° head- tube angle on our size S test bike is fairly typical for bikes of this ilk, as is the 998mm wheelbase.

It's kitted out with a Shimano 105 Di2 R7100 electronic groupset, though the

> "The tyres grip well, inspiring some more aggressive cornering and confidence on both wet and dry roads"



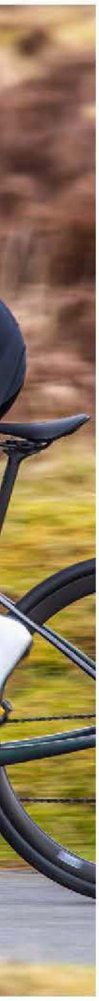
While the wide tyres made for a comfy rough-road experience, we feel lighter tyres would provide a better ride

Shimano RS520 crankset is non-series. The compact crankset with 50/34 tooth chainrings is paired to a wide-ranging 11-34 tooth cassette. The Avail rolls on the Giant SLR2 36 Disc WheelSystem, which features a wide, 22mm internal rim width. This means that the 32c Giant Gavia Fondo 1 tubeless tyres actually measure 34mm wide when inflated to 50psi. In total, our test bike weighs 8.7kg – a shade heavier than the Liv EnviLiv Advanced 1 aero bike.

The semi-wireless Shimano Di2 took a little configuring. We switched off the semi-synchronised shift mode using the function button on the rear mech (after much Googling and scrolling through the Shimano E-tube app) as this tester's not a fan. We struggled to reach the brake levers at first and discovered Giant's D-shaped carbon seatpost was set up with a -15mm offset. After rotating the two pieces of the alloy saddle clamp 180°, it became a +5mm offset – perfect! Road bikes of our size usually use 38cm wide bars, but this one's 40cm, perhaps to stabilise steering.

The Avail feels more of an all-road bike than a pure road bike. With such wide tyres and low pressures, as well as the low-profile tread, rougher roads and back lanes are smoothed out wonderfully. The tyres also grip well, inspiring some more aggressive cornering and confidence on both wet and dry roads, helped by the good braking performance.

While the Shimano 105 Di2 electronic shifting is a joy to use, we do feel like the extra cost it entails could have been better spent on improved components to reduce the bike's weight a little and offer a more sprightly ride. You could switch out the tyres for lighter, faster ones to help with this, though.



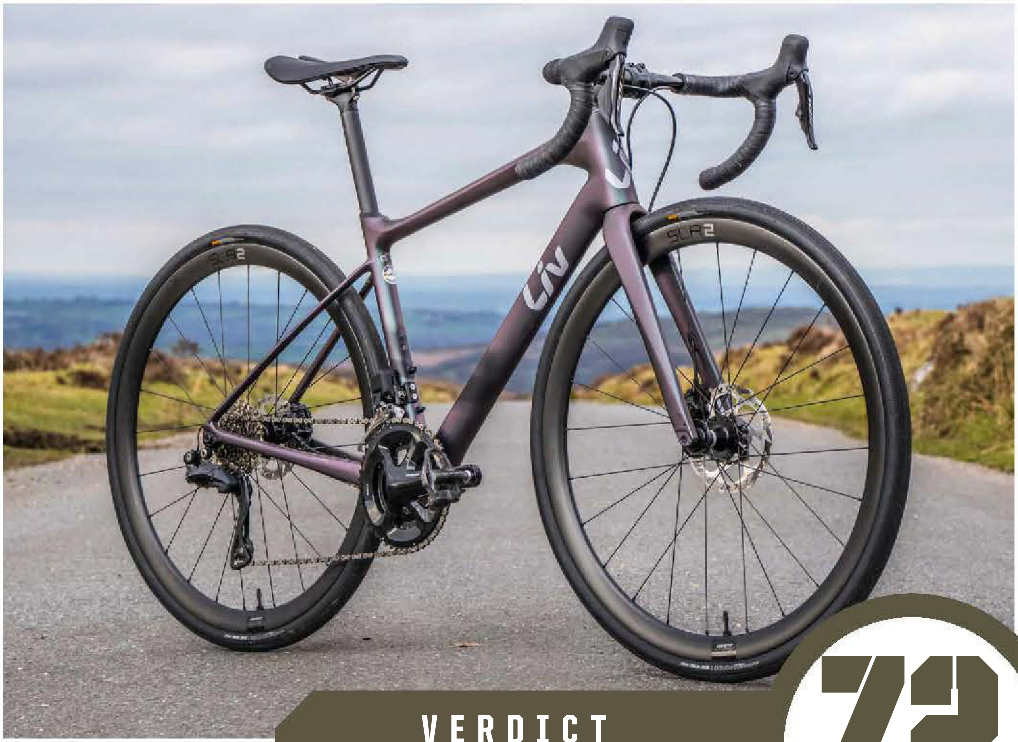
LIV AVAIL ADVANCED 1 £3,699 LIV-CYCLING.COM

SPECS

Weight 8.7kg (S)
Frame
Liv Avail Advanced
Fork
Liv Avail Advanced
Gears
Shimano 105 Di2 R7100, 12-speed (50/34t, 11-34t)
Brakes
Shimano 105 R7100 hydraulic disc
Wheels
Giant SLR-2 36 Disc WheelSystem
Finishing kit
Giant Contact stem, Liv Contact SL D-Fuse bar, Giant D-Fuse composite seatpost, Liv Approach saddle, Giant Gavia Fondo 1 Tubeless 700 x 32c tyres

HIGHS
Smooth over rough ground; wide-ranging gearing; good cornering grip

LOWS
Non-series crankset; a little weighty; slightly sluggish ride feel



VERDICT

A COMFY AND STABLE RIDE, BUT IT LACKS THE SPARKLE OF LIV'S RACIER OFFERINGS

72 %

220 BACK ISSUES & BINDERS

MISSED AN ISSUE?

220 TRIATHLON
SWIM. BIKE. RUN. FASTER!
GEAR ON TEST • NEW! LIGHTWEIGHT DRYROBE • RUNNING BOTTLES
14 TOP TIPS FOR RACING OVERSEAS
BACK FROM THE BRINK
George Peasgood's miraculous recovery journey
BIG WETSUIT GROUP TEST!
Plus: best buys to help you swim faster on any budget
HOW TO RECCE YOUR RACE COURSE
CONQUER YOUR HALF-IRONMAN
THE COMPLETE GUIDE TO 70.3 RACING

ISSUE 417
Complete guide to training and racing Ironman 70.3; How to recce your race course right; Top tips for racing overseas; George Peasgood recovery interview exclusive; The Big *220* wetsuit grouptest, with options to suit all budgets and abilities

220 TRIATHLON
BUILD BIKE STRENGTH
SEBASTIAN KIENLE
REFLECTING ON A LIFE IN IRONMAN

ISSUE 416

220 TRIATHLON
35 EASY WAYS
COME BACK STRONGER
DRAFT BUSTERS
PATAGONMAN

ISSUE 415

220 TRIATHLON
10
GREAT BRITISH WOMEN
THE WORLD'S TOUGHEST TRIATHLONS

ISSUE 414

220 TRIATHLON
HOTTEST NEW TECH
12 WEEK IRONMAN TRAINING PLAN
CAN YOGA HELP YOU RACE FASTER?
THE ULTIMATE BEGINNER'S GUIDE TO TRIATHLON

ISSUE 413

220 TRIATHLON
INDOOR CYCLING TIPS
GEAR OF THE YEAR
CHELSEA SODARO

ISSUE 412

220 TRIATHLON
SWIM. BIKE. RUN. FASTER!

Complete your *220 Triathlon* collection by ordering a back issue, and pick up an easy-to-store binder at the same time! There's no better way to house your collection and keep your favourite magazine in perfect condition.

PRICES (INCLUDES POSTAGE AND PACKAGING)

BACK ISSUE
UK - £5.99 / EUROPE - £6.35
REST OF WORLD - £7.35

BINDER (Subscriber-only prices)*
UK - £9.34/ EUROPE - £10.35
REST OF WORLD - £11.70

ORDER ONLINE

BACK ISSUES buysubscriptions.com/back-issues/220-triathlon-magazine-back-issues
BINDERS buysubscriptions.com/merchandise/220-triathlon-magazine-slipcase

PHONE 0844 826 7820

Lines open weekdays 8am–8pm and Saturdays 9am–1pm
Overseas please call +44 (0) 1795 414815

*Non-subscriber binder rates: UK £10.99; Europe £11.50; Rest of world £13. Please allow 28 days for delivery from date of purchase.

TRAINING

BOOST YOUR PERFORMANCE - TODAY!

P62 RACING IN THE HEAT MASTERCLASS

JAMES WITTS
Freelance writer and former editor of *220 Triathlon* magazine, James specialises in sports science and endurance training.

CYRILLE QUINTARD

STEVE SAYERS

P67 FOUR PROTEIN-RICH RECIPES

KATE PERCY
is a nutritionist and keen amateur athlete. She's written three books on sports nutrition and founded Go Bites energy balls.

GETTY IMAGES

P70 ASK BEN BRIGHT AND EXPERT Q&AS

BEN BRIGHT
Ben is a former triathlon Olympian (Sydney 2000) and head coach of British Triathlon's Olympic Programme.

SECRETSTUDIO

P74 MENOPAUSE & BONE HEALTH

LAUREN DRINKWATER
is a personal trainer and group exercise instructor specialising in ante- and post-natal fitness.

Masterclass

RACING IN THE HEAT

A DETERIORATION IN PERFORMANCE IS INEVITABLE WHEN RACING IN THE HEAT. BUT THOSE LOSSES CAN BE MINIMISED WITH OUR PROVEN HEAT-BEATING TOOLBOX...

WORDS JAMES WITTS IMAGE GETTY IMAGES

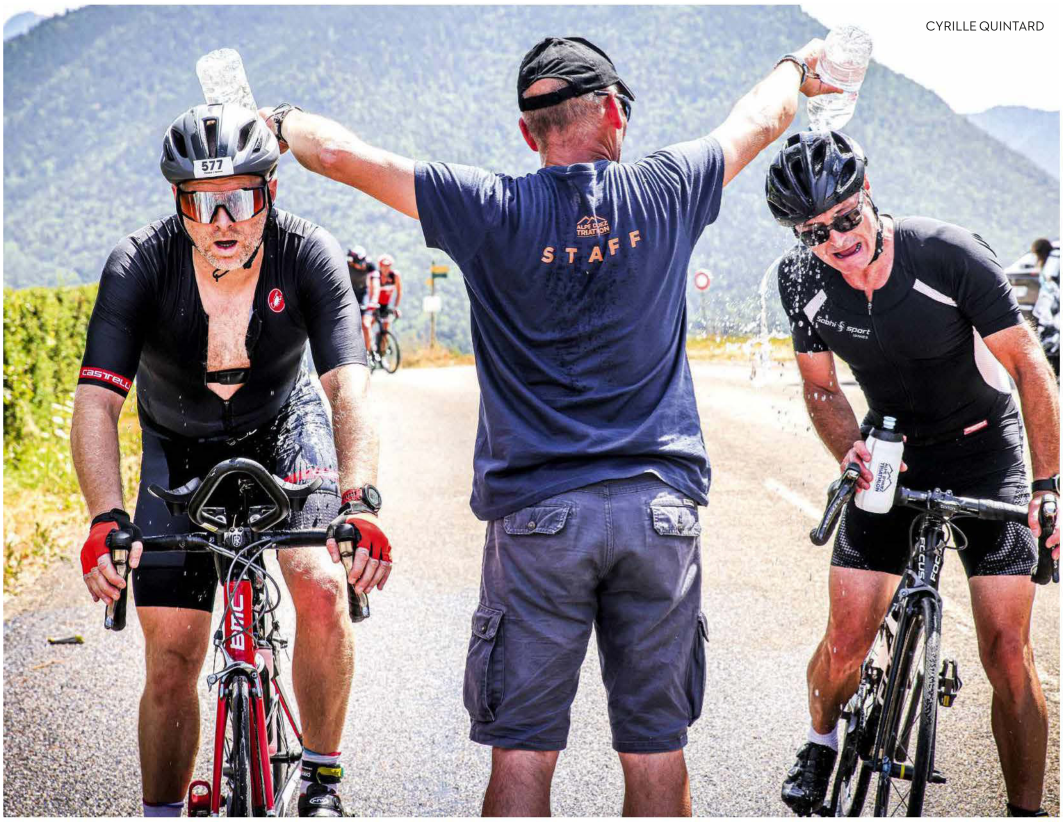
A brief science lesson... Your resting core body temperature is around 37°C. Exercise increases the demands on energy production, so you burn through glucose in an effort to fuel your working muscles. It works but rather inefficiently as just 40% of food metabolism's used to produce ATP (adenosine triphosphate, which your cells use to contract muscle). The rest escapes as heat. A plateau in your exercising core may occur anywhere between 38.5 and 39.5°C. However, when it's hot outside, the increased ambient temperature, solar radiation and humidity can lift this over 40°C. That not only results in fatigue, but it can also lead to heatstroke and heat exhaustion. In short, a dedicated heat strategy is essential, not only for your performance but your health, too.

Arguably your greatest strategy is acclimatisation. A swathe of research has shown that healthy adults exposed to conditions that elevates their core temperature by 1°C to 2°C for 60 to 90mins over a period of four to 10 days will afterwards elicit a lower resting core temperature, greater blood plasma volume and an increased sweating rate – all favourable adaptations to exercising in the heat. This is difficult to recreate at home (acclimation) but not impossible, as you'll discover.

In fact, World Triathlon places so much emphasis on racing safely in the heat that they've created a 29-page athlete document. In it, they stress that "heat acclimation should be prioritised prior to any event where the environmental conditions are forecasted to be hot and/or humid, even if the level of heat stress is uncertain. It's important to note that heat acclimation doesn't impair performance in cool environments and may even increase it under some circumstances". So, acclimate and race stronger in all conditions. That's a big win. As are these 10 tips... ▶

10 WAYS TO RACE WELL IN HOT CONDITIONS

From taking baths to swilling menthol, downing ice slushies to adding more clothing, these strategies will see you breeze through a hot summer of racing



CYRILLE QUINTARD

WILLIAM LINN

01 TAKE A QUICK DIP

Regular turbo-training sessions sans fan as summer kicks in will raise your core temperature and deliver the stimulus you need to perform in hotter climes. You can take that to the next level by slipping into the bath straight after. Professor Neil Walsh showed that moderate exercise immediately followed by a 15min bath in 40°C waters over six days where 'bath-time' rose by 5mins each day, resulted in a 4% improvement in 5km time-trial time in the heat. Walsh also says that a hot bath can improve cardiovascular function, glucose regulation and boost immunity.

02 SWILL OR SKIN

Dr Russ Best undertook his PhD thesis on 'Menthol mouth swilling and endurance performance in the heat'. He showed that runners enjoyed a more comfortable experience and lower oxygen consumption after swilling 0.1% menthol mouth rinse. He also realised positive results when applying menthol to the skin. Why is down to menthol affecting temperature receptors that alter your thermal perception. Just don't cake yourself in the stuff from top to toe as that can lead to heatstroke!

03 MAKE A HYDRATION PLAN

Around a 2% loss in bodyweight through sweating has been shown to affect endurance performance. Cue a well-designed hydration plan. Measuring your sweat rate's a good start. Bike or run for arpprox. 1hr, ideally in hot conditions, and drink nothing from start to finish. Weigh yourself before and after and see how much weight you've lost. Around 1kg fluid loss should be replaced with one litre of fluid. This should include electrolytes lost in sweat, especially sodium, which helps transfer water from the bloodstream to the working cells.

04 BRING ON THE BAKING SODA

Sodium bicarbonate loading (baking soda) is a popular fuelling strategy prior to high-intensity efforts, the theory being that as baking soda's an alkaline, it raises the pH of blood. This means you can tolerate a greater bandwidth of blood acidosis when working hard as you're starting from a lower base. It's also used by athletes as a hyper-hydration tool. In effect, you enjoy a blood plasma increase, so as well as preventing dehydration, it helps with bloodflow and circulation.

05 ADD MORE CLOTHING…

It sounds parochial but applying more layers of clothing during training is another acclimation strategy. It won't be as effective at raising core temperature as exercising in the heat, but it will deliver partial heat stimulus.

06 ...REMOVE CLOTHING

Polyester's a must in the heat as it wicks sweat far more efficiently than cotton; that said, if you're wearing a cotton race outfit, you might be stuck in the early 80s! A lighter colour's better for sun deflection than darker colours, albeit treatments like 'coldblack' perform a similar function. A waterproof sunscreen of minimum factor-30's also a must. Look for titanium oxide – a proven ingredient that deflects the sun's rays.

07 EXPOSE YOURSELF

If you're racing abroad and are there a week or so beforehand, gradually increase your exposure to training in the heat, perhaps running for 30mins at the hottest part of the day and then adding further time each run. Ensure you keep the air conditioning on overnight, though, as heat acclimation's impaired if your sleep's terrible. Also, if you puncture when racing, find a tree to shelter under when sorting the tyre.

JAMES MITCHELL

08 START COLD TO WARM UP

Pre-cooling strategies are popular in an effort to lower your temperature before you hit the swim. Swallowing an ice-slushie drink's a popular one, but a very cool drink will suffice. Spraying wristbands with anti-freeze is another cooling option.

09 DOSE-UP ON DOPAMINE

Dopamine's better known for impacting mood but it also plays a key role in the thermoregulatory centre of your brain, which is why changes in concentrations have been shown to affect core temperature regulation during exercise. However, dopamine's synthesised in the body, so you'll need to consume foods that you'll assimilate to produce dopamine, such as fish oil, plus the amino acids L-theanine and tyrosine.

10 GROW FITTER

As your fitness grows, you experience a host of adaptations that are naturally conducive to racing fast in the heat. These include an improved sweat response to dissipate heat quickly, which stems from both lower core temperature thresholds for the initiation of sweating and greater sensitivity of sweating response to increasing core temperature. **220**

A COMPLETE GUIDE FOR NEW RIDERS

Get into
Road Cycling
FROM THE MAKERS OF CYCLING
CHAMPION ADVICE
Pro tips on riding, fitness, nutrition & maintenance
17 Steps to a better cycling year
Healthy habits
And the science behind them
£500 BIKES
Great value bikes reviewed
REVEL IN THE RIDE
The ultimate guide to road cycling
HOW TO
RIDE IN A GROUP | AVOID ILLNESS | FIX GEARS

Packed with tips & advice Get into Road Cycling is the ultimate guide for beginners

Inside this special edition, you'll find out how to:

• Climb and descend like a pro • Set up gears
• Build fitness in your lunchtime
• Maintain brakes • Fix annoying noises
• Ride in a group • Find the right size bike
• Cheat the wind • Fuel up properly
• Climb and descend like a pro
• And much more!

10 steps to climbing success

Expert technique and fitness advice

Triban RC120

Great-value bikes reviewed

Bump up the pump

Easy repair and maintenance tips

ORDER YOUR COPY TODAY

www.buysubscriptions.com/getintoroad23

or call 03330 162 138 and quote 'Get Into Road 2023'

Lines are open 8am-6pm weekdays and 9am-1pm Saturdays Overseas please call +44 (0) 1604 973 746
£10.99 with FREE UK delivery. EUR price £12.49, ROW price £13.49.
All orders are subject to availability. Please allow up to 28 days for delivery.

UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) and are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). Outside of free call packages call charges from mobile phones will cost between 3p and 55p per minute. All orders are subject to availability. Please allow 28 days for delivery.

PROTEIN POWER

Eating protein doesn't mean a diet of eggs and chicken, as Kate Percy demonstrates with this month's eclectic mix of recipes...

RECIPES KATE PERCY **IMAGES** STEVE SAYERS

As a triathlete, it's important that you eat moderate amounts of protein regularly throughout the day and following strenuous training sessions. The recommendations from the International Olympic Committee for strength and endurance athletes are 1.2 to 1.8g protein per kilogram of body weight per day.

An essential macronutrient required for growth and repair, eating protein will help you adapt and recover from training as well as reduce fatigue and muscle damage.

I'm a huge advocate for getting your protein as much as possible from a well-balanced and varied diet rather than shakes and bars. Eating eggs or a piece of fish, for instance, will give you not only high-quality protein but also a host of ▶

other useful nutrients. But you don't have to eat scrambled eggs every day! Lean meat, fish, eggs, pulses, nuts and seeds, dairy and soy foods are all good sources of protein. And with that in mind, here are four, high-protein meals with a tasty twist...

First up, **Sesame-crusted tofu on avocado toast**. This is a fantastic option for vegans or if you're simply trying to lead a more plant-based diet. Made from soy beans, tofu is a great source of protein, as well as calcium, manganese and selenium. We all love this as a post-workout brunch for muscle recovery and bone health.

Next, this delicious **Marmitako (Basque tuna stew)** gives you not only around 30g of protein from the tuna, but also the added benefit of vitamin C and healthy fats. Prepare in advance and enjoy after a day on the bike, it's a fantastic way to enjoy tuna.

Salads can be packed with protein, too. This quick and easy **Hot smoked salmon, egg and fennel salad** contains about 30g of protein, a perfect amount to maximise muscle protein synthesis. Again, this dish provides even more bang for your buck, with omega-3s, B vitamins and vitamin D.

And lastly we go Caribbean with **Jerk chicken on a stick with tropical salsa**. The succulent skewers are packed with great quality protein for muscle health, which is boosted with anti-inflammatory properties from the jerk marinade* and the spicy, vitamin-loaded salsa. Eat them straight from the grill, or pop them into your lunchbox and enjoy cold.

**The remaining spice mix will keep for several weeks in a small spice jar.*

RECIPE OF THE MONTH

SESAME-CRUSTED TOFU ON AVO TOAST

PREP 5mins
COOK 10mins
SERVES 2
VE

INGREDIENTS • 225g block smoked tofu, cut into 2cm thick slices • 3 tbsps sesame seeds • 1 tsp sesame oil • 1 tbsp tahini • 1 tbsp soy sauce • tsp ground turmeric • tsp black pepper • 1 small clove garlic, crushed • 1 tsp cornflour • Juice of lime • 1 large ripe avocado (or 2 small) • 1/2 red onion, finely diced • 1 tomato, finely chopped • 1 green chilli, finely chopped • 2 limes – 1 for juice; 1 cut into wedges • 1 tbsp coconut oil • 2 tbsps fresh coriander, chopped • 2 slices sourdough, toasted

1

In a bowl combine the sesame seeds with the tahini, soy sauce, turmeric, pepper, garlic, cornflour and lime juice. Add a little water to form a thick paste.

2

Pat the tofu dry with kitchen towel and dip the tofu slices in the paste so they're well-coated.

3

Make the guacamole-style avocado. Halve the avocado, remove the stone and scoop out the flesh. On a board, mash roughly with a fork, then mash in the onion, tomato, green chilli and coriander. Transfer to a bowl, add lime juice and season.

4

Heat a frying pan, add the coconut oil and carefully fry the tofu for a few minutes each side until crispy all over. Toast your bread. Spread the guacamole on the toast and top with the hot tofu.

Sports nutrition cook and keen amateur athlete Kate Percy set up the #GoFaster campaign in 2009 and, following the publication of several sports nutrition books, now produces a range of all-natural energy balls, Go Bites (katepercys.com).

MIX IT UP!

3 MORE MARINADES

ADD MORE SPICE

Make a chipotle sauce with 1/2 tsp cumin and garlic powder, 1 tbsp chipotle paste, 1/2 tbsp tomato purée, juice of 1/2 a lime and 1 tbsp olive oil.

AFRICAN TWIST

1 tbsp olive oil, 1 tbsp finely-chopped dried apricots, 1-2 tsps berbere spice, 1 tbsp finely chopped peanuts, salt and pepper.

TANDOORI STYLE

2 tbsps yoghurt, juice of 1/2 lemon, 1 tsp crushed garlic, 1 tsp grated ginger, 1/2 tsp turmeric, ground cumin, coriander, paprika, black pepper.

STEW ON THIS

TUNA STEW

PREP 10mins COOK 30 mins SERVES 2 Ⓟ

INGREDIENTS • 2 tbsps olive oil • 1 onion, sliced • 1 small leek, thickly sliced • 1 small carrot, thickly sliced • 1 clove garlic, crushed • 1 red and 1 green pepper, chopped • 2 tbsps chopped sundried peppers • 4 waxy potatoes, cut into large chunks • 400ml can cherry tomatoes • 1 tbsp tomato purée • 2 tsps sweet paprika • 1 tsp hot smoked paprika • 200ml vegetable stock • 2 thick tuna steaks, cut into large chunks • 1 cup white wine • Handful curly parsley, chopped • 2 tbsps extra virgin olive oil

METHOD

1 Using a large flame-proof casserole dish gently fry the onion in 1 tbsp olive oil until soft. Add the garlic, leek, carrot and peppers and fry for a further 2-3mins, stirring frequently.

2 Stir in the sundried peppers and potatoes, then add the tomato purée, tomatoes, paprika and 200ml stock. Cover and cook on a very gentle heat for about 20mins or until the potatoes are soft and sauce thick. Taste and season if needed.

3 Heat the other tbsp olive oil in a non-stick frying pan over a high heat. Quickly flash fry the tuna so that it's sealed on the outside but not cooked through. Gently stir the tuna into the stew. Cover again and leave for 10mins to rest.

4 Give the stew pot a gentle shake. Add the parsley and olive oil and serve with a chunk of bread.

SUPER SALAD

HOT SMOKED SALMON, EGG AND FENNEL SALAD

PREP 10mins COOK 8-10 mins SERVES 2 Ⓟ

INGREDIENTS • 2 hot smoked salmon fillets • 2 eggs • Bunch of watercress • 1 small bulb of fennel, fronds removed and chopped; fennel thinly sliced • 2 carrots, thinly sliced • Handful dry black olives • 6 sundried tomatoes, chopped

For the dressing • 3 tbsps extra virgin olive oil • 1 tbsp white balsamic vinegar • 1 tbsp lemon juice • Zest of 1 lemon

METHOD

1 Carefully place the eggs in a saucepan of boiling water. Reduce to a simmer and cook for 7-8mins. Remove and place in a bowl of cold water. When cool, peel and cut into half lengthways.

2 In a small bowl whisk together the dressing ingredients.

3 Put the watercress in a large bowl. Remove the skin from the salmon, break into chunks and add to the bowl along with the fennel, carrot, olives and sundried tomatoes. Toss with the dressing, leaving a tbsp to add at the end.

4 Arrange in two pasta-size bowls. Add the eggs and scatter over the fennel fronds. Drizzle with the rest of the dressing.

BOOST THE PROTEIN Pat dry a can of drained chickpeas, toss with olive oil, cumin and smoked paprika, season and bake at 180°C for 15mins. Scatter over your salad and devour immediately!

STICK IT TO ME

JERK CHICKEN KEBAB

PREP 10mins + marinating time
COOK 8-10 mins SERVES 4

INGREDIENTS • 4-6 skinless chicken breasts • 4 kebab sticks • 1 tbsp olive oil • Juice of 2 limes • 1 lime, cut into wedges **For the spice mix** • 1 tsp each garlic powder, soft brown sugar, cayenne pepper, sweet smoked paprika, dried oregano or thyme, allspice, ground cumin, salt, black pepper • 1/2 tsp each cinnamon, dried chilli flakes • 1/4 tsp each ground nutmeg **For the salsa** • 1 tbsp each chopped pineapple and mango • 1 tbsp pomegranate seeds • 4 spring onions, finely chopped • 1 red chilli, deseeded and finely chopped • 1 tbsp fresh coriander, finely chopped • Juice of half a lime

METHOD

1 Lay a large piece of cling film on a large chopping board. Lay out the chicken a few cms apart and then cover with another piece of film. Bash with a rolling pin until flat. Cut each into 3 or 4 pieces.

2 Combine all the spice mix ingredients and mix together well. Take 1 tbsp of the mix* and combine with olive oil and lime juice in a large bowl. Add the chicken and coat well with the marinade. Cover and leave for up to 24hrs, but at least 30mins. Combine all the salsa ingredients in a bowl.

3 Thread the skewers with the chicken. Heat a griddle pan or grill to high and cook for 8-10mins, turning every 2mins until cooked through. Serve with the salsa.

DIETARY PREFERENCE GUIDE Ⓟ PESCATARIAN Ⓥ VEGETARIAN (VE) VEGAN

THE BRIGHT Answer

HOW TO SWITCH BIKE INTENSITIES

Being able to cope with an inconsistent effort during your race bike leg is key to preserving your legs for the run. Ben Bright has the session that will get you race-ready...

PROFESSOR BEN BRIGHT

As the former head coach of British Triathlon's Olympic Programme, Ben Bright oversaw our most successful Games to date. He's also a former triathlon Olympian (Sydney 2000) and now provides consultancy work for British Triathlon.

Elite, draft-legal bike legs can be brutal. Yes, high-aerobic threshold power is critical to be able to deal with the racing demands but there's more to it than that.

Short laps on the bike generally mean lots of corners, so lots of decelerating and accelerating, while large packs make the effort more like an on/off light switch. Often the hardest bike legs have relatively low average powers, but it's the spikiness that makes it so tough. And if you're not prepared to cope with the demands, your run suffers.

Non-drafting racing isn't quite as stochastic but many courses these days, particularly champs, have more than a few corners and plenty of other athletes to navigate, making the effort less consistent than you might otherwise expect. Because of this, being able to cope with an inconsistent effort during the bike leg is important to non-drafting performance as well. So how to prepare?

Sessions that intentionally modulate your effort and/or energy systems are a great way to prepare for racing and can also help to move your aerobic threshold upwards. Here's an example:

To do this session well you need to have a basis for your effort and a way to gauge how hard you're pushing. We'll use two options: Functional Threshold or RPE. If using Functional Threshold this can be either Power or Heart Rate. Unsure what Functional Threshold is? After a hard warm-up, perform a 20min maximal effort and then multiply your average power or HR for the effort by .95 to find your Functional Threshold (or the level of effort you should be able to sustain for 45-75mins continuously).

For RPE we'll use a 1-10 scale, with 1 being very, very light exercise; 10 being maximal, all-out effort that you could sustain for 30-90secs. For this session, we'll focus on levels 7 and 8, which should be just below and just above your sustainable threshold.

Warm-up • 10-15mins easy intensity, RPE 1-3/55-65% Functional Threshold (either HR or Power) **Prep** • 10mins ramping up intensity, every 2mins building from RPE 3/FT 65% to RPE 8/FT 100% • 2mins easy • 4 x 30secs @ RPE 9/FT 120% with 60secs recovery between each (Note: HR response will lag too far behind to be useable here, so just go on RPE.) • 3mins easy **Main set** • 2mins @ RPE 8/FT 110% – just above your sustainable aerobic intensity • 6mins @ RPE 7/FT 95% – just below your sustainable aerobic intensity • 2-4mins easy recovery – take more if needed so you can hit the intensities • Repeat 3-5 times.

> *"Sessions that modulate your effort and/or energy systems are a great way to prepare for racing"*

Don't continue beyond the point where you're no longer able to sustain the required intensity. Aim to finish feeling like you could've done another rep if needed. There are two ways to progress this set – either more reps or reduce recovery. Further out from racing I'd increase reps, closer to racing I'd decrease recovery.

Cool-down • 15-20mins decreasing intensity every 5mins from RPE 6/FT 80% down to RPE 2/FT 55%. This helps to clear the by-products produced when exercising at high intensity and improves adaptation and recovery. This is also a good time to start taking on your recovery nutrition.

This is a tough session but should be manageable, particularly if you've had a good winter where you've banked plenty of low-intensity miles. If so, doing this type of session once per week for 3-5 weeks will certainly see you improve your race threshold. 220

Need advice from Ben? Send an email to ***askben@220triathlon.com***

Doing a mixed-intensity session will result in big improvements in your race threshold

ASK 220

THIS MONTH'S COACHING PANEL

NICK BEER
Healing torn ligaments
Rehabilitation strength and conditioning coach Nick is also a former British elite triathlete.

HANNAH BROADBRIDGE
Running after an ankle sprain
Hannah is a registered musculoskeletal years a particular interest in sports injuries.

ANDY BLOW
Painful thigh cramp
Andy is the brains behind nutrition experts, Precision Hydration. He also has top-10s in Ironman and Xterra events to his name.

ANDREW SHEAFF
Tempo Trainer benefits
US swim coach Andrew has been helping people improve their swimming for over 20 years. He specialises in helping triathletes improve their swimming skills through online coaching.

SECRETSTUDIO

→ HEALING TORN LIGAMENTS

Q How long do torn ligaments take to heal? *Lawrence Underwood*

A The healing time of ligaments can take weeks or even months because they lack blood vessels, which means they have a low blood supply. They rely on nutrients from the surrounding fluid at the joint, so an injury often slows down this process.

Torn ligaments can range in severity and are graded I (usually a specific area of tenderness when touched, minimal swelling and normal range of movement), II (there may be significant tenderness when touched and a large amount inflammation may affect the whole joint, making it difficult to function correctly) and III (there may be an audible 'pop' sound heard at the time of injury, is often immediately painful but may become pain free a short time after the event, and there could be significant swelling, which may occur rapidly and impact movement).

Grades I or II can heal on their own and don't need surgical intervention. Initial management may involve first aid techniques to minimise bleeding and swelling. The aim is to promote tissue healing, prevent joint stiffness, protect against further damage, and strengthen the muscles that surround the joint.

A fully torn ligament, or Grade III tears, rarely heal naturally. Some can initially be treated conservatively, where the injured area is immobilised to help promote healing, but most of the time surgery is needed. Surgery can help the joint heal correctly and reduce the chances of a potential re-injury. It can also repair the surrounding tissues and maintain the supply of fluid required for healing. Without surgery, the joint could remain unstable, painful and require continuous care to restore the joint back to its full range of motion.

There are several ways to improve ligament healing:

First Aid – To initially treat a ligament injury, it's advised to apply the RICE principle: Rest, Ice, Compression, and Elevate. The last three parts of RICE help to control the swelling, but the more time you can rest and allow the swelling to go down, the less internal damage you should do. Some people may also be advised to use crutches until they've seen a doctor.

Medications – Your doctor may recommend some over-the-counter medications or prescription medications to help reduce swelling and pain. For extreme pain, your doctor may inject the injured area with steroid medication.

Physical therapy – Your doctor may recommend that you see a physio a few days a week to help regain full range of motion. After a few sessions, you may be given exercises to continue at home and progress you back into activities for everyday life.

Surgery – As mentioned, if you have a severe injury, your doctor may recommend surgery. After surgery, patients are advised to engage in a rehab programme to help with recovery and get back to everyday activities. *Nick Beer*

→ RUNNING AFTER AN ANKLE SPRAIN

Q How and when's best to return to running after an ankle sprain? *Rhian Jones*

A Well, unfortunately, there's no 'one size fits all' answer to this question! Returning to running after an ankle sprain, is guided by the grade of the ankle sprain; mild, moderate, or severe; pain; and function. But you should expect anywhere between six weeks to three months before healing occurs. [See above Q&A for more on ligament tears].

Once the pain is manageable, you can start to gradually mobilise, strengthen, and work on balance and proprioception exercises for the foot and ankle. When there's full, painless range of movement and muscle strength is restored, you may return to running.

Seeing a physiotherapist is a great way to receive personal advice, treatment, and a suitable exercise programme to help regain strength and stability in the ankle. They can also tailor the programme to suit your future exercise goals. *Hannah Broadbridge*

→ PAINFUL THIGH CRAMP IN RACES

Q In the last few years I've done duathlons involving 40km cycles and a Windsor to Brighton triathlon involving a 106km bike ride. In all races, I experienced really painful thigh cramp, in both thighs, generally in the latter half of the race and particularly bad uphill causing me to stop. Any advice? *Mark Woolley*

A Exercise-associated muscle cramping is something that causes issues for a lot of people, in fact some studies put the prevalence at over 80% of ▶

YOUR QUICK-FIRE QUESTIONS

Q What's the fastest swimming stroke?

A When it comes to swimming on the surface of the water, front crawl is the king of speed. The body is moving straight through the water with little change in body position. That means the amount of drag that's created is relatively low. Additionally, the rotation of the body allows for the arms to be put in optimal positions to create a lot of propulsion.

Q What makes triathlon's strongest cyclists so fast?

A Especially in middle distance and long-course non-drafting events, it really is all about the bike. Time-wise it constitutes the biggest proportion of the event and not only can a strong rider make up huge chunks of time on the ride but, if they're able to put in a decent bike split without having to bury themselves, they'll have more left in the tank for the run. It's not surprising then that some of the most dominant athletes at the Ironman world champs have been über bikers. These athletes have obviously done well in the genetic lottery, but they will also have put the hours in, dialled in a great riding position and, by training in that position, developed an ability to stay rock solid in it for hours on end churning out massive watts.

Q At what water temperature are wetsuits banned in a UK race?

A Once the water temperature reaches 22°C (or 24.6°C if you're aged 60+ or are racing over ▶

CONTINUED...

athletes suffering at one time or another, so you're not alone!

Despite many decades of research into the topic there's still no clear or simple explanation as to what causes cramps, so finding a foolproof 'cure' is as elusive as it's ever been.

The latest theory is that muscle cramps have a multitude of possible causes that all overlap and intertwine and that every person's individual 'cramp recipe' is somewhat unique to them.

The most common ingredients for endurance athletes are likely to be related to muscular fatigue, fluid and/or electrolyte imbalance and insufficient energy intake, so addressing these is a good place to start.

Ensuring that you've trained your muscles to endure similar levels of fatigue and intensity as they will experience on race day is the first thing to make sure you have covered. Training-wise, this means building up to rides of sufficient duration and intensity to simulate the demands of your event. Include intervals at higher power outputs than you anticipate having to hold in the event and consider doing some harder rides on back-to-back days, so you start the second session 'pre-fatigued'. Rest up and taper in the final few days before the event as well to make sure you're going in with 'fresh' legs.

Nailing fuelling is all about ensuring adequate carbohydrate intake around and during hard sessions and the event itself as this helps reduce fatigue at a muscular level. For a 2hr+ event you'll be looking to take on board 60g of carb per hour as a minimum, maybe more like 60-90g if you're going fast. This could be in the form of a carb drink mix, gels, bars or chews, and will need some practice before race day so your stomach can handle it.

Tackling hydration and sodium balance will help, too. Ideally, try to minimise fluid losses due to sweat to less than 2-4% of your bodyweight by drinking enough to stay within those values. The fluid that you do drink should contain electrolytes to replace those lost during exercise. The main electrolyte you lose in sweat is sodium, which plays key roles for fluid balance and muscular contraction.

It's worth noting that most sports drinks are only strong enough to replace around half of the average electrolyte loss in the average person's sweat. So, look for one with around 1,000mg or 1,500mg of sodium per litre. *Andy Blow*

→ TEMPO TRAINER BENEFITS

Q Is it worth swimming with a Tempo Trainer? *Liz Norton*

A Yes! And here's why... Without feedback, it's tough to know what you're doing right and where you could improve. While getting great coaching is really valuable, it's not accessible to everyone. So, if you want to get better, you need to create your own feedback. Enter the Tempo Trainer.

For those not familiar with the name, it's an external metronome you wear under your cap or on your goggles. It beeps at whatever frequency you want, from every 1/10th of a second to every 2mins. 'Tempo Trainer' is a brand, but others are available and any device that serves a similar function will get the job done.

What's great about a Tempo Trainer is that is provides crystal-clear feedback and, when used in the right way, it can take your swimming to the next level. Here are three strategies you can use with one to improve your swimming.

The Tempo Trainer can help you learn to pace. Let's say you want to practise swimming at exactly 2:00/100m and you're in a 25m pool. Just set the trainer to beep every 30secs, then make sure you get to the wall every 30secs. If you start too fast or too slow, you'll know, and you can make the adjustment.

Taking longer strokes is a key aspect of effective swimming. However, it's tough to know if you're improving your stroke length. One way is to count your strokes, but some individuals struggle to count consistently. Here's an alternative – set the Tempo Trainer at a stroke rate that's comfortable for you. Then try to swim progressively faster over the same distance without changing the stroke rate. The only way to do so is to take longer strokes. It's a fun game that provides immediate feedback as to how well you're doing.

Some triathletes really struggle with maintaining a solid stroke rate, or how fast they move their arms. If you can speed up your arms and sustain that speed, you can go faster. However, it's tough to force yourself to do or even know if you're being successful. So, simply pop in the Tempo Trainer, set it for a stroke rate that's just out of your comfort zone and aim keep up with the beeps. Over time, you'll make progress and you'll get better at achieving and maintaining a higher stroke rate, which means faster swimming. *Andrew Sheaff* 220

MORE QUICK-FIRE QUESTIONS

1,501m) wetsuits are forbidden under British Triathlon rules. Getting used to swimming in open water without a wetsuit will be the most important thing you can do here. So if it looks possible your swim may be non-wetsuit, get used to taking your suit off at the end of each training swim and doing a short distance without it to see how it feels.

Q Should you massage tight calf muscles?

A Yes, as massage desensitises the nociceptive response – the nervous system's sensory process that determines noxious, or harmful, stimuli. This desensitisation through massage, whether by a physiotherapist or massage therapist, is useful in relieving symptoms, alongside additional advice on continued activity through gentle exercise such as walking. Massage performed by a physiotherapist or massage therapist aims to inhibit the discomfort or pain of the calf muscles by influencing the nociceptive response and desensitising the area. This will be achieved through a variety of soft tissue techniques.

Need advice or help with any aspect of your multisport training and/or racing? Simply send an email to ***coaching@220triathlon.com*** *for a chance to be featured.*

CYCLING PLUS
THE UK'S BEST-SELLING CYCLING MAGAZINE

3 ISSUES FOR JUST £5

ON TEST! THE BEST BUDGET BIKE
25 WAYS TO RACE FASTER
A trail of two cities
TEST OF ME
Four frames that prove there's more to life than
LIGHTWEIGHT JACKETS TESTED
12 of the best for beating the rain reviewed, from £49 p76
THE UK'S BEST-SELLING CYCLING MAGAZINE
CYCLING PLUS
ISSUE 403 ● APRIL 2023
Beat the traffic
Speedy ebikes for conquering the commute p84
SITTING PRETTY?
Fast fixes for stopping saddle soreness p52
SMARTER FUELLING
15 easy tweaks to make you a leaner and faster rider p38
The Bike Test
DIFFERENT CLASS
Three genre-spanning, go-anywhere gravel bikes for under £2.6k p28
IDING STRONG
Ultimate & easy ways to keep riding, whatever your age! p44
GO EPIC IN 2023
How to smash a multi-day cycling challenge p120
SS OF 2023
ar's hottest road bikes tested to their limits p30

WHY SUBSCRIBE

- Try your first **3 issues for just £5***
- Continue to **save 36%** on the shop price, paying **£24.99 every six issues** by Direct Debit
- **Every issue delivered straight to your door**
- Never miss an action-packed issue or supplement again

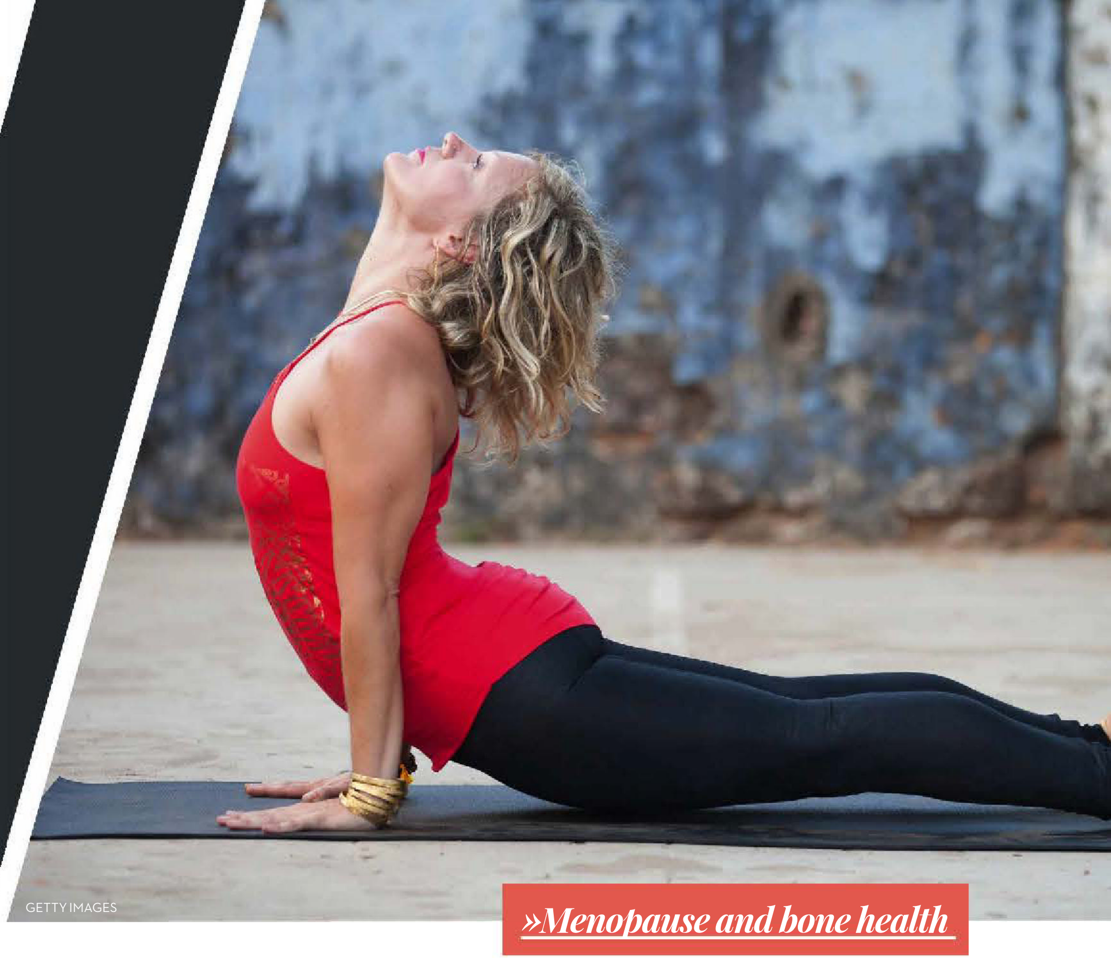
ORDER ONLINE OR BY PHONE

buysubscriptions.com/CPH23

03330 162 142 quote code **CPH23**

Lines are open 8am-8pm weekdays and 9am-1pm Saturdays.
Overseas orders please call +44 1604 973 751 or visit buysubscriptions.com

TERMS & CONDITIONS *3 issues for £5 available to UK Direct Debit orders only. After your first 3 issues, your subscription will continue at just £24.99 every 6 issues saving 36% on the shop price. If you cancel within two weeks of receiving your 2nd issue, you will pay no more than £5. Your subscription with start with the next available issue. UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) and are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). Outside of free call packages call charges from mobile phones will cost between 3p and 55p per minute. Lines are open Mon to Fri 8am – 6pm and Sat 9am – 1pm. **OFFER ENDS 31st December 2023**



GETTY IMAGES

»Menopause and bone health

WOMEN'S TRAINING

LAUREN DRINKWATER
Lauren is a certified advanced personal trainer and group exercise instructor, specialising in ante- and post-natal fitness. *mumfitwonder.com*

Menopause affects women in myriad ways, but reduced bone density is particularly problematic for athletes. Luckily, exercise can help. Here's how

Let's talk menopause and bone health. Thankfully, this natural transition we all go through in our later life is now less of a 'closely-guarded secret' and more of a 'must-do talking point', with many businesses and companies now offering support for women experiencing this often difficult stage in their lives.

Difficult because the symptoms are as varied as they are many – fatigue, hot flashes, dry skin, night sweats, irritability, weight gain, to name just a few in an ever-expanding catalogue. And which ones you get and for how long are anyone's guess!

Bone density may not be the most talked-about menopausal 'side effect', but it's certainly an important one to cover, particularly for athletes and those in training. So as we grow older, our exercise and nutrition must be adapted to the changes our bodies go through and to accommodate any potential reduction in bone density.

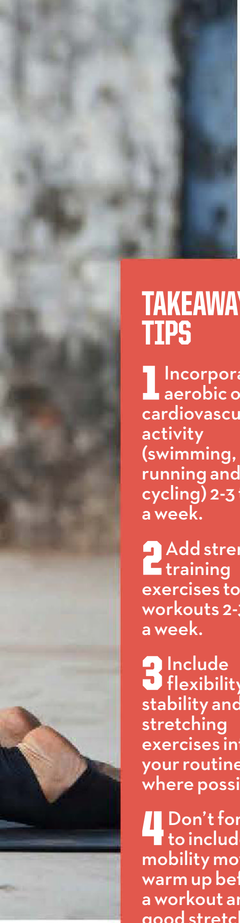
MENOPAUSE AND BONES: HOW ARE THE TWO LINKED?

Menopause is the end of the reproductive phase in a woman's life and is mainly characterised by a drop in the levels of oestrogen hormone. As our ovaries no longer produce it, it causes our menstrual cycles to stop and the above mentioned symptoms, and more, associated with menopause.

It's the drop in this particular hormone which affects the activity of bone cells called osteoblasts, as they play a vital role in building new bone tissue. This is why women can lose up to 10% of their bone mass in the first five years after menopause, and can make women more susceptible to fractures and osteoporosis, affecting approximately 1 in 10 women over the age of 60 worldwide.

To explain a bit more, women reach their peak bone mass around the ages of 25 to 30, when the skeleton has stopped growing and our bones are at their strongest and thickest. Bone density is the measure of the amount of mineral content in bones, determining their strength and resilience. A healthy bone has a honeycombed appearance whereas a bone that's developed osteoporosis contains larger holes with a softer middle. This bone is weaker and vulnerable to breaking. In more severe cases, breaks might even occur after a mild knock, fall or bump.

Other factors contributing to a reduction in bone density include a lack of calcium, vitamin D (whch helps regulate the amount of calcium in the body), and physical activity. Smoking, excessive alcohol consumption, and certain medications, such as corticosteroids, could also exacerbate the loss. But it's the five



TAKEAWAY TIPS

1. Incorporate aerobic or cardiovascular activity (swimming, running and cycling) 2-3 times a week.
2. Add strength-training exercises to your workouts 2-3 days a week.
3. Include flexibility, stability and stretching exercises into your routine where possible.
4. Don't forget to include mobility moves to warm up before a workout and a good stretch after a workout.

> *"Regular weight-bearing exercises can help to improve bone density in postmenopausal women"*

years after menopause where we see the biggest acceleration.

WHAT MEDICATIONS CAN OR SHOULD WE TAKE?

The most common treatment subscribed to patients experiencing peri and postmenopausal symptons is HRT. It's been proven to be effective at reducing the risk of a broken bone by increasing the level of hormones which an average woman would have.

There have been some health-risk concerns such as breast cancer, blood clots and stroke through taking HRT on a long-term basis, especially in older women who might have been at high risk to begin with. However, evidence from recent trials have proven HRT to be generally safe and effective. After the age of 60, other bone strengthening medications can also be prescribed.

WHICH FOODS SHOULD BE INCLUDED IN OUR DIET?

A healthy diet is crucial to lessen the effects of menopause on bone density. A wide range of foods will give your bones all the nutrients they need, so make sure your diet includes fruit and vegetables; dairy (if no allergies); carbohydrates (pasta, bread, potatoes) and protein (fish, eggs and pulses or beans).

The recommended nutritional intake of calcium per day for postmenopausal women is 1,200mg, and 10 micrograms (400 international units) of vitamin D a day. Sources of calcium include milk, cheese, yoghurt, sardines, pilchards, soya drinks, green leafy vegetables, pulses, tofu, and dairy-free milk. Some women may need to take supplements to ensure they're getting enough.

As the best source of vitamin D is direct sunlight, UK residents should take supplements (D3 is the more effective type) between October and early March.

It's also advised to reduce alcohol intake to stay within the recommended limits and for smokers to seek help to stop.

TRIATHLETE FOCUS

Hydration is key as it becomes harder to handle the heat during this time of hormonal change. And save the simple sugars and starchy carbs for when you really need them during races and training, as your diminished oestrogen means you're less insulin resistant and more sensitive to carbs, so you're better off opting for fruit and veg.

Aim to get about 30g of carbs (about the amount in one banana) during a long endurance training session. This is generally proven to be sufficient according to exercise physiologist and nutritionist Stacy Sims, author of *How to match your food and fitness to your unique female physiology for optimum performance* and creator of 'The Menopause for Athletes' course.

She also recommends around 25g of protein within 30mins of a hard exercise session as high cortisol levels mean you're more catabolic (when you're eating into muscles for energy). Protein will bring down the cortisol and promote repair. Sims adds: "Choose recovery foods such as Greek yoghurt, cottage cheese or a drink with whey and casein for the best result."

WHAT TYPE OF EXERCISE HELPS?

To build strength in the bones, you need to do a combination of exercises where you bear weight on your feet and work your muscles harder than you normally would in your everyday activity. Bone is living tissue so when you bear weight on it, it gets stronger.

Studies have shown that regular weight-bearing exercises (i.e. 30-45mins three times a week) can help to improve bone density and reduce the risk of fractures in postmenopausal women.

Weight-bearing exercises are any type of activity which makes the body work against gravity while standing or moving. These help to stimulate bone growth by triggering osteoblasts to build new bone tissue. For example:

HIGH IMPACT

- Jogging/running
- Skipping rope
- Step aerobics
- Tennis
- Heavy lifting or pushing – e.g. shopping, gardening or heavy weight training in the gym (i.e. 3-6 reps to overload)

MODERATE IMPACT

- Dancing
- Hiking
- Stair/hill climbing
- Medium-heavy weights (i.e. 12-15 reps to overload)

LOW IMPACT

- Elliptical and stair step machines
- Low-impact aerobics
- Brisk walking
- Light weights (i.e. 20 reps or more to overload)

Functional strength and balance workouts can include basic moves such as calf raises, bodyweight exercises like press-ups or squats and using equipment such as resistance bands, free weights, and weight machines.

Yoga and Pilates can also improve strength, balance and flexibility in menopausal women, but some of the moves, such as bends, can make women with osteoporosis more susceptible to fractures, so always speak to a qualified instructor before starting.

GETTY IMAGES

HOW WAS IT FOR YOU?

WAR OF ATTRITION

Xterra made a long-awaited return to British shores in May, promising an epic course and plenty of challenges. They weren't lying, as our eager participants discovered...

WORDS ROB SLADE & SAM BEGG **IMAGES** XTERRAUK

HIPLOK
saddleback
Liv
18

“Thump. Thump. Thump.” What is that sound? Am I at the start line already? Lining up against the sound of battle drums? Surely not, as I can’t feel the wind on my face and don’t have any sudden urge to run to the loo. I open my eyes and realise I’m still in bed and have at least another few hours of sleep before having to get up and go through the motions. That noise? That’d be the headache I’ve been trying to fend off over the past few days while the green shoots of a cold and/or hay fever tried to break through.

When I do eventually get up I convince myself I’m winning the battle and will be fine to race, so go about my business. Over the past few days it’s the threat of getting ill and not being able to toe the start line that’s dominated my consciousness, so the nerves are unusually absent. But they shouldn’t be. Ahead of me lies hours of off-road exploits at Xterra UK, returning to British shores for the first time since 2015. If you’re tempted by off-road triathlon, Xterra is the pinnacle. Organised in partnership with Always Aim High Events, the course was based within 1,000 acres of beautiful parkland at Weston Park, Shropshire.

Weston Park, Shropshire, played host to the first Xterra race seen in the UK since 2015

INTO THE UNKNOWN

That lack of nerves inevitably lures me into a false sense of security and I take my time chowing down on a jam bap followed by a pain au chocolat. By the time I leave it’s 7:30am, I have an hour’s drive ahead of me and transition closes at 9:30am. Arriving into the vast, green forest-lined fields of Weston Park, I realise I need to get a move on so rush down to register and set up transition. I just have enough time to check the entry/exit points around transition and with five minutes spare, make my way toward the lake… without my swim cap. ‘Idiot’, I think, before collecting it and then leaving again, this time forgetting my goggles.

Fortunately, the water’s warmed up a little over the last couple of weeks and the 15.6°C temperature feels almost balmy. The two-lap, 1,500m lake swim looked simple enough on paper with no majorly tight turns, pan-flat conditions and large buoys marking the course. It’s flanked by beautiful woodlands, and among the trees I spot the unmistakably tall, red silhouette of Alistair Brownlee, who’s getting ready away from the crowds. He’s soon in the water and disappearing out of view with a substantial gap. And, after another wave sets off, it’s time for my wave to begin from a standing start in the water.

By now there’s so much silt kicked up that visibility is non-existent. I dip my face in and find myself staring into a dark abyss, with no discernible sign of what lurks below. Though admittedly, that is tempered by another sense. Touch. The lake is shallow and the bottom is coated in so much moss and reeds that it quickly swallows up my legs. We wait for the elite group to pass by for their second lap and then it’s legs and elbows a go!

What looked like a straightforward swim in a beautiful spot quickly turns into a battle, not with other athletes but with the reeds. For the first half of the lap it feels like they’re reaching out in an attempt to cling on and come along for the ride. Hands, feet, lips –

QUICK FACTS

1,500M
SWIM

27.5KM
MTB

10.67KM
TRAIL RUN

MEN’S WINNER
ALISTAIR BROWNLEE
2:04:27

WOMEN’S WINNER
LIZZIE ORCHARD
2:36:06

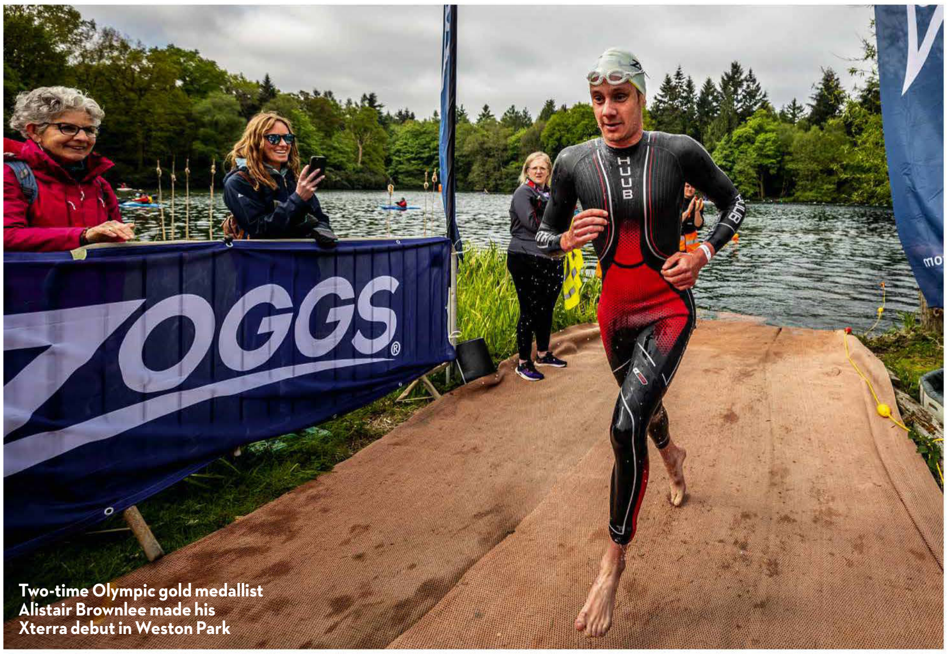
XTERRAPLANET.COM

ROB SLADE

Rob is *220*’s content editor. Motivated by good views he regularly uses the scenery as an excuse for taking so long to complete events.

▲
The two-lap, 1,500m lake swim looked simple enough on paper but reeds made things tricky

> *"I dip my face in and find myself staring into a dark abyss, with no discernible sign of what lurks below"*



Two-time Olympic gold medallist Alistair Brownlee made his Xterra debut in Weston Park

nothing is safe. Mercifully, the second half of each lap is much clearer and after a few elbows to the face, goggle repositioning and further battles with undergrowth on the second lap, I emerge feeling relieved more than anything else.

FALL FROM GRACE

A 200m run across the field takes me straight to transition, where I plant my backside down, slip on some socks and pour water over my face to rid myself of the reed moustache I've acquired. I've borrowed the bike, an entry-level Specialized hardtail, from my brother on the basis that I'll replace it if I break it, but have limited experience with it until now. My off-road riding experience is similarly basic, so I endeavour to take it steady.

I leave T1 with several other competitors and duly make my way onto the course. Within minutes we're on singletrack in woodland. I tuck in behind another guy taking it steady and we let a few faster competitors by. No more than five minutes into the ride I realise I've made a mistake by not recceing ▶

the course the week before. As we emerge from the woods the poor bloke in front takes on a deep rut cutting across the trail and ends up flying over his handlebars.

He's fine, and I decide not to dwell on it as I head across the field and back into the woodland. The start of the route is characterised by singletrack, much of it uphill, and open grassy sections, which also seem to be uphill. I'm assured by others it's not particularly technical, but it's hard work and it feels like I'm constantly putting power down. The only time I get any sort of break is when I slow down to let others past or the few occasions I hop off and run my bike up a hill because it feels like the easier option.

Halfway through the first of two laps (totalling 27.5km, complete with 312m elevation gain), I again come out of woodland and this time am blessed with a decent downhill on gravel. I carry speed into the corner, hoping to make up for my slow progress in the woods... but don't make it to the other side.

The bike slides out from under me and I crash onto the ground, my shoulder, cheek and knee taking most of the brunt. I dust myself off, stand up and assess the damage. Both knees are bleeding, through the hole in my tri-suit I can see I've lost skin on my shoulder and I've cut up my hand and forearm, too. I raise my fingers to my cheek, it's wet. Several people stop to check if I'm okay and one confirms that yes, I do indeed have a gash in my cheek.

Miraculously, my brother's bike seems unscathed, but the amount of exposed flesh on show means my race is over. So at this point, I'm going to hand over to another age-grouper racing at the same time, though admittedly he was much further up the road than me.

Sam Begg has been competing in triathlon for over a decade and even raced Xterra last time it came to Britain, though he hasn't raced a tri for a couple of years. Unlike me, he came to compete rather than just complete...

OVER TO SAM BEGG

After an eventful swim – including swallowing an unwelcome amount of lake water and then watching it reappear again – I'm glad to be on the bike. My swim time of 28:42 put me 10th in my age-group, but it wasn't as quick as I'd hoped. I knew the bike course was going to be tough. We recced it the day before and it was immediately apparent that it was going to be a war of attrition. The course isn't super technical, but it needs almost constant power output, with a limited number of substantial downhills to take advantage of.

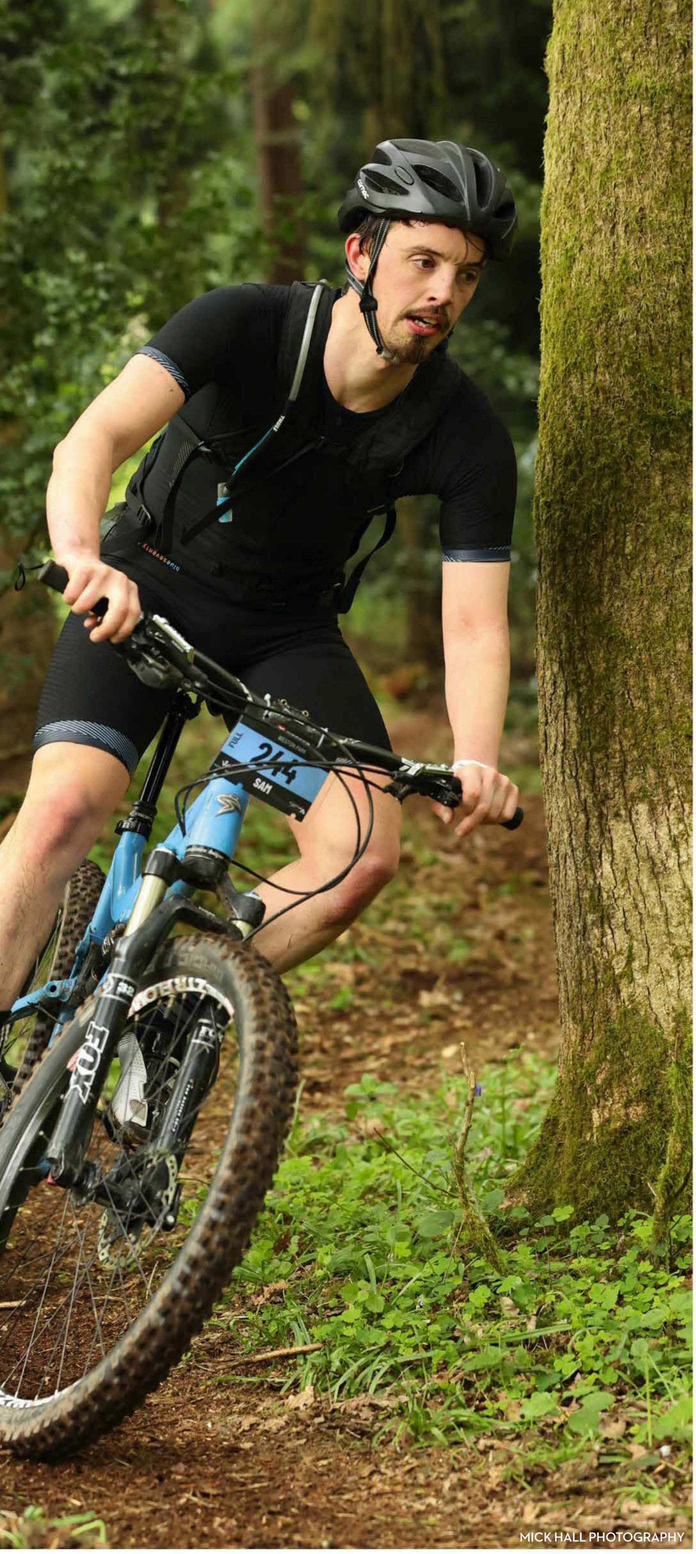
My stomach isn't feeling great after the swim and I have no bottle cage on my bike, so I make sure I remember to grab my fuel and tool-filled pack. Right from the start the course begins to sap at my endurance, but I put the power down and pedal hard. As a regular mountain biker the course doesn't feel overly taxing in terms of technical challenges, but there's never much respite. It quickly goes from singletrack winding its way through the woods to stretches over

Rob made the rookie error of not recceing the course in advance

MICK HALL PHOTOGRAPHY

▲ With our man Rob out of the race, Sam Begg, seen here on the energy-sapping bike leg, takes over the race reporting

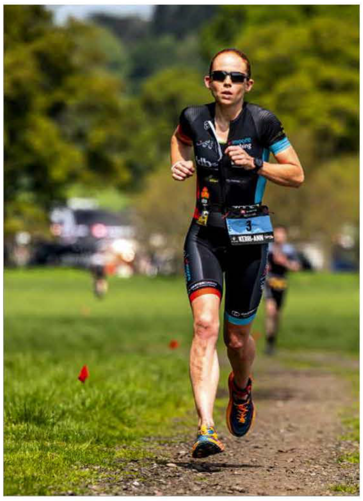
▶ Lizzie Orchard was first female across the line with a time of 2:36:06



MICK HALL PHOTOGRAPHY

XTERRA
ALWAYS AIM HIGH events
WATERFALL RACING

> *"Miraculously, my brother's bike seems unscathed, but the amount of exposed flesh on show means my race is over"*



open meadows or along gravel tracks, so there's not long to wait to catch up to the athlete ahead.

Not all of those stretches between singletrack are welcoming, however, and more than once I find myself battling through long grass and terrain that makes me feel like I'm riding through treacle. Before I know it, I'm back among the trees on singletrack twisting uphill and downhill, though there's no extended descents for me to go full gas. Every now and then an obstacle pops up – a fallen tree here, a deep rut there – so I keep my eyes firmly on the way ahead, even if the beautiful grounds are tempting me to look around.

I spot a few people going over their handlebars when caught out by the terrain, while there's plenty of others hopping out of the saddle to run their bikes up and over super tricky parts of the course. While my feet stay firmly planted into my pedals for the duration, and my time of 1:24:43 is sixth best in my age-group, I know I'm in trouble. The stomach issues are still there and the cramping means I've not taken on any nutrition. As I arrive back into transition I realise this run could get ugly.

COMING UNSTUCK

Thankfully, the tummy troubles seem to ebb away as I start the run, though admittedly the damage is already done. The run is tough. Straight out of T2 I'm straight onto a long, grassy climb and cut through beautiful woodlands, still gaining elevation. Then comes the quarry, complete with sides so steep that the organisers have even laid on rope to help you escape. The route takes me in and out of one crater multiple times. It's tough on the legs but gives me a great chance to see how everyone else is getting on. By the look on their faces, they're also digging deep.

From here the course takes me in and out of more woodland and past the impressive country house of Weston Park. It's a stunning setting and it's made even better by the fact that the sun is shining, but by now the lack of nutrition and endurance-sapping bike course is catching up on me.

As I approach the end of the first of two laps a wave of lethargy rises through my body and the stomach cramps return. I know this performance isn't going to be up to my expectations and I honestly feel done in. I've also made a rookie error. I clearly hadn't paid attention to the detail in the race guide, as the aid stations are cupless and I have nothing. Reluctantly, I decide to call it a day.

It's been one heck of an experience, but it just wasn't my day, with multiple things going against me from the start. For their part, the organisers have addressed the weed issues in the swim, saying: "We are aware of the weed issues in the lake for our swimmers over the weekend. We are reviewing this issue in order to make sure this doesn't happen again next year."

Reeds, nutrition mishaps and bike crashes aside, it was a fantastic event in an incredible setting, and it was so good to see Xterra back in Britain. There was an unmistakable excitement in the air throughout the day, with 294 athletes starting the full distance (a duathlon and sprint-distance event took place the same day) and, despite what our experiences might suggest, very few DNFs. Bring on 2024.

220 2023 RACE CALENDAR

PICK YOUR RACES AND PLAN YOUR SEASON WITH THE 220 EVENT GUIDE

CELTMAN

17 JUNE 2023 The 11th edition of the Celtman promises the same extreme challenge as its 10 predecessors. Expect freezing cold water, strong winds, driving rain and low visibility!

CHENDERSON

JUNE

17-18 CHOLMONDELEY CASTLE TRIATHLON ● (various dists and events). Cholmondeley Castle, Cheshire. *castleraceseries.com*

17 CELTMAN (3.4km S/200km B/42km R). Torridon, Wester Ross, Scotland. *cxtri.com*

LOVE SWIMRUN LLANBERIS (various dists). Llanberis, North Wales. *loveswimrun.co.uk*

VALE TRIDENTS OPEN WATER AQUATHLON (various dists). Ashton Keynes, Wiltshire. *lpsevents.co.uk*

18 MANX MIDDLE DISTANCE TRIATHLON (various distances). Mooragh Park, Ramsey, Isle of Man. *manxtriclub.com*

24 MALLORY PARK TRIATHLON FESTIVAL (various dists). Mallory Race Circuit, Kirkby Mallory, Leicestershire. *activetrainingworld.co.uk*

CELTMAN SOLO POINT FIVE (2.26km S/92km B/23km R). Torridon, Wester Ross, Scotland. *cxtri.com*

BUCS CHAMPIONSHIP (1.5km S/38.6km B/9.8km R). Whitlingham Country Park, Norwich, Norfolk. *bucs.org.uk*

25 ULTIMATE TRIATHLON (various dists). Alderford Lake, Whitchurch, Shropshire. *uktriathlon.co.uk*

STEWARTBY LAKE TRIATHLON ● (various dists). Stewartby Lake, Bedfordshire. *activetrainingworld.co.uk*

CARDIFF TRIATHLON ● (750m S/20.4km B/5.2km R). Cardiff, Wales. *alwaysaimhighevents.com*

ETON DORNEY TRIATHLON (various dists). Eton College Rowing Centre, Windsor, Berkshire. *votwo.co.uk*

BOWOOD HOUSE TRIATHLON ● (various dists & events). Bowood House, Wiltshire. *bowoodhousetriathlon.co.uk*

FROME SPRINT TRIATHLON (400m S/23km B/5km R). Frome Sport & Fitness, Somerset. *race-nation.co.uk*

30 LONG COURSE KINDER (various dists). North Beach, Tenby, Pembrokeshire. *taffkids.com*

LONG COURSE WEEKEND (various dists). North Beach, Tenby, Pembrokeshire. *lcwwales.com*

JULY

1 BANANA TRIATHLON (various dists and events). Eton College Rowing Centre, Berkshire. *dorneylakeseries.co.uk*

ETON DORNEY TRIATHLON (various dists). Eton College Rowing Centre, Berkshire. *votwo.co.uk*

2 THE NORTHUMBRIAN (various dists). Kielder Waterside, Hexham, Northumbria. *thenorthumbrian.com*

IRONMAN UK

2 JULY 2023 Renowned for its enthusiastic crowd support and stunning bike course, this Bolton-based classic also offers 55 world champs age-group slots, plus an extra 50 women's places.

● EUROPEAN CHAMPS QUALIFIER ● WORLD CHAMPS QUALIFIER

WINDERMERE STANDARD DUATHLON 🔴 (various dists and events). Cockshott Point, Bowness on Windermere, Cumbria. *wilddeerevents.co.uk*

IRONMAN UK (3.8km S/180km B/ 42.2km R). Bolton, Greater Manchester. *ironman.com*

SWANAGE TRIATHLON FESTIVAL (various dists and events). Sandpit Field, Swanage, Dorset. *challenging.events*

BOX END CENTURION (various dists). Box End Lakes, Box End, Bedfordshire. *activetrainingworld.co.uk*

CROYDE OCEAN TRIATHLON (1.5km S/38km B/12km R). Putsborough Beach, Croyde, Devon. *croydeocean.co.uk*

GOSFIELD LAKE TRIATHLON & MULTISPORT (various dists and events). Gosfield Lake Resort, Halstead, Essex. *stuweb.co.uk*

LLANRWST SPRINT TRIATHLON (400m S/25km B/5km R). Llanrwst Swimming Pool, Llanrwst, Wales. *gogtriathlon.com*

5 MIDWEEK DORNEY TRIATHLON 2 (various dists). Dorney Lake, Windsor, Berkshire. *dorneytriathlon.com*

8 WOODHORN MUSEUM TRIATHLON 🟢 (various dists and events). Woodhorn Museum, Ashington, Northumberland. *vo2maxracingevents.co.uk*

OUTLAW HALF HOLKHAM

9 JULY 2023 A single-lap lake swim precedes a single-loop bike course through stunning Norfolk countryside and coastal roads, before a final undulating, tarmac-and-trail run.

RB CREATE

BLUESTONE PEMBROKESHIRE COAST TRIATHLON (1.5km S/43km B/ 10.6km R). Gosfield Lake Resort, Halstead, Essex. *pembstri.org.uk*

9 OUTLAW HALF HOLKHAM (1.9km S/90km B/ 21.1km R). Holkham Hall, Holkham, Norfolk. *outlawtriathlon.com*

HEVER CASTLE FESTIVAL OF ENDURANCE (various dists and events). Hever, Edenbridge, Kent. *castleraceseries.com*

IRONBOURNE TRIATHLON (various dists and events). Eastbourne, East Sussex. *140.6miles.co.uk*

15 ODYSSEY TRIATHLON (3.8km S/180kmB/ 42.2km R). Regatta Meadow, St Neots, Cambridgeshire. *activetrainingworld.co.uk*

16 IRONMAN 70.3 SWANSEA (1.9km S/90km B/ 21.1km R). Swansea, Wales. *ironman.com*

ST NEOTS TRIATHLON – RACE 2 (various dists). Riverside Park, St Neots, Cambridgeshire. *activetrainingworld.co.uk*

DORNEY TRIATHLON (various dists). Dorney Lake, Windsor, Berkshire. *dorneytriathlon.com*

DEVA DIVAS (various dists and events) The Meadows, Chester, Cheshire. *chestertri.org.uk*

22-23 CASTLE HOWARD TRIATHLON 🟢 (various dists and events). Castle Howard, York, Yorkshire. *castleraceseries.com*

COTSWOLDS LAKE 62 SUMMER EVENTS (1.5km S/39km B/ 10.5km R). Ashton Keynes, Wiltshire. *lpsevents.co.uk*

22 THE WALES SWIM RUN (various distances). Freshwater East and Lydstep, Pembrokeshire (depending on distance). *thewalesswimrun.com*

23 HENLEY TRIATHLON (various distances). Henley Leisure Centre & Gillotts School, Oxfordshire. *uktriathlon.co.uk*

ULLSWATER TRIATHLON (various dists). Eton Park Foot Holiday Park, Pooley Bridge, Cumbria. *epicevents.co.uk*

29-30 SNOWMAN (various dists). Plas y Brenin, Snowdonia, Wales. *alwaysaimhighevents.com*

30 OUTLAW NOTTINGHAM (3.8km S/180kmB/ 42.2km R). National Water Sports Centre, Nottinghamshire. *outlawtriathlon.com*

WORLD TRIATHLON SERIES SUNDERLAND 🔴 (various dists). Roker Beach, Sunderland, Tyne and Wear. *sunderland.triathlon.org*

MIDDLESEX & HERTS TRIATHLON (various dists). Merchant Taylors' School, Northwood, Hertfordshire. *activetrainingworld.co.uk*

AUGUST

2 MIDWEEK DORNEY TRIATHLON 3 (various dists). Dorney Lake, Windsor, Berkshire. *dorneytriathlon.com*

4-6 THE MUMBLES CENTURION (2km S/78km B/20km R). Mumbles, Gower, Swansea, South Wales. *mumblescenturion.com*

CHARLIE CROWHURST

TRI SPEAK

Wondering what the 'washing machine' is, or where to find your M-dot?! Make things easy with our guide to common tri terms...

'A'-RACE The most important race of your season

AGE-GROUPER Non-pro triathlete (most of us!)

AEROBIC Aerobic exercise involves or improves oxygen consumption by the body

ANAEROBIC How much energy your body can produce without using oxygen

AQUABIKE Race with just swim and bike elements, no run

BILATERAL BREATHING Breathing every 3 strokes when swimming

BIOMECHANICS The forces applied to your body during exercise

BONKING Running out of energy mid-race or training session

BRICK SESSION When you 'brick' two disciplines together, e.g. bike & run

CADENCE Pedal rate on bike, in revolutions per minute (rpm)

CARB-LOADING Eating a carb-heavy meal prior to a race to boost energy

CATCH The part of the swim stroke where you pull on the water

CORE STRENGTH Development of the stomach and lower back area in support of whole body strength ►

TRI SPEAK (CONT)

DNS/DNF Did not start, did not finish – abbreviations in race results

DOMS Delayed onset muscle soreness (after racing or training)

DQ Disqualified, abbreviation in race results

DRAFTING Hitching a ride on someone else's slipstream in the bike or swim

DRAG The amount of turbulent displaced air that an object creates, resulting in a slowing effect

DUATHLON Usually a run/bike/run format

ELECTROLYTE DRINK Contains sodium and potassium to help your body hydrate

ELITE Another word for a 'pro' – e.g. the Brownlees

GLYCEMIC INDEX A ranking system for carbohydrates based on their effect on blood glucose levels

HIT High-intensity training

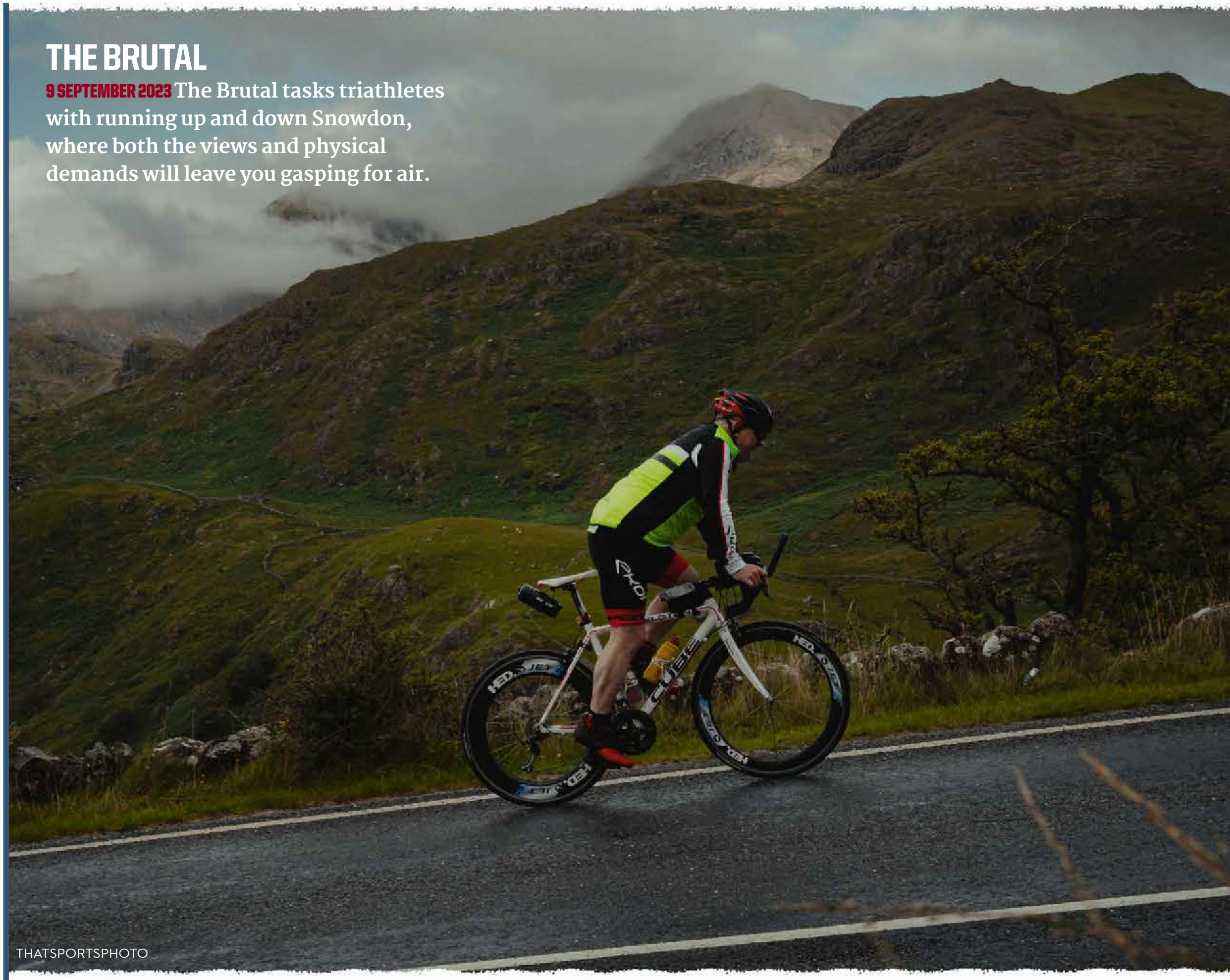
HRMAX Your maximum heart rate

HYPONATREMIA A deficiency of sodium in the blood

INTERVALS Intensive training using repeated on/off efforts

KONA Place in Hawaii where Ironman Worlds are held every October

LACTIC ACID Produced in high-intensity workouts,



THE BRUTAL

9 SEPTEMBER 2023 The Brutal tasks triathletes with running up and down Snowdon, where both the views and physical demands will leave you gasping for air.

THATSPORTSPHOTO

5-6 LONDON TRIATHLON (various dists). ExCeL Centre, London Docklands. *limelightsports.club*
THE SUNDOWNER TRIATHLON WEEKEND (various dists and events). Newby Hall, Ripon, North Yorkshire *marauder.co.uk*

5 BIRMINGHAM TRIATHLON (various dists). Sutton Park, Sutton Coldfield, Birmingham. *uktriathlon.co.uk*
CLEVELAND STEELMAN (2km S/93.3km B/21.1km R). Ellerton Park, North Yorkshire. *clevelandtriathlon.co.uk*
GV70.TRI (1.9km S/90km B/21.1km R). Aberavon Green Stars RFC, Port Talbot, Wales. *clevelandtriathlon.co.uk*

6 COWMAN TRIATHLON (various dists). Emberton Country Park, Olney, Buckinghamshire. *bigcowsports.com*
DORNEY TRIATHLON (various dists). Dorney Lake, Windsor, Berkshire. *dorneytriathlon.com*
BEWL WATER TRIATHLON (various dists). Bewl Water, Lamberhurst, Wadhurst, Kent/East Sussex. *tlsports.co.uk*
BOUNDARY BREEZE SPRINT TRIATHLON (750m S/24.5km B/5km R). Allostock Village Hall Knutsford, Cheshire. *mantri.niftyentries.com*

12 MIDNIGHT MAN (various dists and events). Marsh Street, Dartford, Kent. *bridgetriathlon.co.uk*

13 ST NEOTS TRIATHLON - RACE 3 (various dists). Riverside Park, St Neots, Cambridgeshire. *activetrainingworld.co.uk*
BASSETLAW SPRINT TRIATHLON (400m S/19km B/5km R). Worksop Leisure Centre Worksop, Nottinghamshire. *in.njuko.com*
BEDFORD TRIATHLON (1.5km S/41km B/10km R). Russell Park, Bedford. *bedfordharriers.co.uk*
SUN CITY SPRINT TRIATHLON (750m S/20km B/5km R). Grand Hotel Sunderland, Tyne and Wear. *suncitytri.co.uk/events*

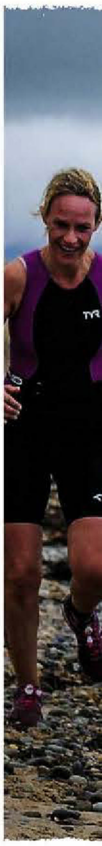
20 BOX END TRIATHLON (various dists). Box End Lakes, Box End, Bedfordshire. *activetrainingworld.co.uk*
YORK TRIATHLON (various dists). York Sports Village, York, Yorkshire. *uktriathlon.co.uk*
BLITHFIELD TRIATHLON (various dists). Blithfield Sailing Club, Abbots Bromley, Staffordshire. *pma-racing.co.uk*

26 ARCTIC ONE TRI AND PARA TRI FESTIVAL (INC. BRITISH PARATRIATHLON CHAMPS) 🔴 (various dists and events). Dorney Lake, Windsor, Berkshire. *arctic1.co.uk*

27 TRIATHLON RELAY CHAMPIONSHIPS (500m S/15km B/5km R). National Watersports Centre, Nottingham. *trisociety.co.uk*
WEST LANCS SUMMER TRIATHLON (400m S/18.5km B/5km R). Edge Hill University, Lancashire. *epicevents.co.uk*
MALLORY PARK TRIATHLON (various dists). Mallory Race Circuit, Kirkby Mallory, Leicestershire. *activetrainingworld.co.uk*

SEPTEMBER

2 BRITISH SPRINT CHAMPIONSHIP (750m S/25km B/5km R). The Mere, Ellesmere, Shropshire. *uktriathlon.co.uk*



🟢 **EUROPEAN CHAMPS QUALIFIER** 🔴 **WORLD CHAMPS QUALIFIER**

THE ROC ENGLAND
(1.5km S/93km B/
18.5km R).
YMCA Lakeside,
Windermere,
Cumbria.
theroc.com

SAUNDERSFOOT TRIATHLON
(750m S/20km B/5km R).
Saundersfoot,
Pembrokeshire.
saundersfoottriathlon.com

3 OUTLAW X
(1.9km S/90km B/
21.1km R).
Thoresby Park,
Nottinghamshire.
outlawtriathlon.com

IRONMAN WALES
(3.8km S/180km B/
42.2km R).
Tenby, Pembrokeshire,
Wales.
ironman.com

BALA STANDARD TRIATHLON ●
(1.5km S/38.6km B/
9.4km R).
Llyn Tegid, Bala, Wales.
toughrunneruk

HELVELLYN TRIATHLON
(1.5km S/59km B/15km R,
plus aquabike & relay).
Glenridding, nr Penrith,
Cumbria.
trihard.co.uk

SHROPSHIRE TRIATHLON
(various dists).
The Mere, Ellesmere,
Shropshire.
uktriathlon.co.uk

BELVOIR CASTLE TRIATHLON
(various dists and events).
Staunton Harold Estate,
Ashby-de-la-Zouch,
Leicestershire.
endorphinsport.com

NEW FOREST MIDDLE DISTANCE TRIATHLON
(various dists and events).
Moyles Court School,
Ringwood, Hampshire.
challengingeventsltd.eventrac.co.uk

TAVISTOCK TRIATHLON
(various dists & events).
Mount Kelly College,
Tavistock, Devon.
sportivaevents.co.uk

GEORDIEMAN TRIATHLONS
(various dists).
Druridge Bay Country
Park, Morpeth,
Northumberland.
resultsbase.net/event/6424k

READING TRIATHLON
(various dists and events).
Hi 5 Swim Centre,
Reading Lake Hotel,
Reading, Berkshire.
tri20.club/reading-triathlon/

LONDON DUATHLON
(various dists).
Richmond Park,
Richmond, London.
limelightsports.club

9-10 SANDMAN
(various dists).
Newborough Forest,
Anglesey, North Wales.
alwaysaimhighevents.com

TOMMY ZAFARES

WORLD TRIATHLON CHAMPIONSHIP SERIES

2023 RACES

24-25 JUNE | MONTREAL
Canada
13-16 JULY | HAMBURG (+ MIXED RELAY WORLD CHAMPS) Germany
29-30 JULY | SUNDERLAND
UK
17-20 AUGUST | PARIS OLYMPICS TEST EVENT
France
22-24 SEPTEMBER | CHAMPIONSHIP FINALS PONTEVEDRA
Spain

TOMMY ZAFARES

WORLD TRIATHLON PARATRI SERIES

2023 RACES

17-18 JUNE | BESANCON
France
8-9 JULY | MONTREAL
Canada
14-15 JULY | LONG BEACH
USA
15 JULY | SWANSEA
UK
19-20 AUGUST | PARIS
France
23-24 SEPTEMBER | WORLD CHAMPS PONTEVEDRA
Spain

9 THE BRUTAL
(various dists).
Llanberis, North Wales.
brutalevents.co.uk

10 ST NEOTS TRIATHLON
●(1.5km S/40km
B/10km R and 1.5km
S/40km B).
Riverside Park, St.Neots,
Cambridgeshire.
activetrainingworld.co.uk

BOURNEMOUTH INTERNATIONAL TRIATHLON
●(various dists & events).
West Cliff Gardens,
Bournemouth, Dorset.
challenging.events

BRIGHTON & HOVE TRIATHLON
(various dists).
Brighton and Hove,
East Sussex.
brightontriathlon.com

COTSWOLDS LAKE 62 END OF SEASON EVENTS
(1.5km S/39km B/
10.5km R).
Ashton Keynes, Wiltshire.
lpsevents.co.uk

NEWBURY TRIATHLON
(300m S/22km B/
5km R).
Northcroft Leisure
Centre, Newbury,
Berkshire.
teamkennet.com

PENDLE TRIATHLON
(400m S/22km B/
5km R).
West Craven Sports
Centre, Barnoldswick,
Lancashire.
pendletriclub.co.uk

THE VITRUVIAN TRIATHLON
(1.9km S/84km B/21km R).
Rutland Water Park
Empingham, East
Midlands.
pacesetterevents.com

VIRIDIAN DAVENTRY TRIATHLON
(400m S/20km B/5km R).
Daventry Leisure Centre,
Northamptonshire.
rugbytriathlon.org.uk

THE CHANNEL TRIATHLON
(various dists and events).
East Cliff Sports,
Folkestone, Kent.
channeltri.com

THE SANDMAN

9-10 SEPTEMBER 2023 The Sandman starts on the world-famous Llanddwyn Beach and finishes in the stunning Newborough Forest.

SPORTPICTURESCYMRU

it can inhibit oxygen movement around the body and slow you down

LOW GLYCOGEN TRAINING Training without taking on carbs to increase the body's ability to burn fat

MAIN SET A block lasting 40-50% of a session where the heart rate is elevated

M-DOT Abbreviation for the Ironman logo

IRONMAN 70.3 Pucón

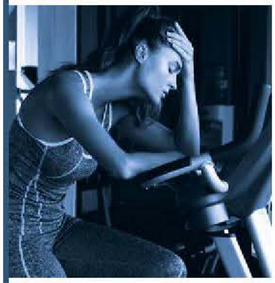
MIDFOOT STRIKE When running, your front foot strikes the ground flat – as opposed to toe or heel first

MUSCULAR ENDURANCE Your muscles' ability to produce a given level of force for an extended duration

NEGATIVE SPLIT Completing the second part, e.g a run lap, faster than the first

OVERPRONATION Foot rolls inwards on impact rather than outwards

OVERTRAINING Common symptoms of training too much (cont'd on next page) with inefficient recovery include insomnia, headaches, moodiness, loss of enthusiasm and increased illness due to a suppressed immune system



PB Personal best ▶

TRI SPEAK (CONT)

PRONATION The natural 'turning in' of the foot

POWER OUTPUT Measured in watts on your bike; work divided by time

PULL The mid part of the swim stroke where the hands and arms accelerate using the purchase from the catch

REPS Pre-fixed distances covered and pre-fixed recoveries maintained

REST INTERVAL (RI) Period of rest between reps

SCULLING Swim drills that use your hands alone to propel you

SIGHTING Looking ahead/at an object while swimming to keep on course

SWIMRUN Partner race where you do multiple swims and runs

T1/T2 Abbreviation for 'Transition 1' (swim to bike) and 'Transition 2' (bike to run)

TAPER Reducing your training in the days just before your big race

TEMPO EFFORT Challenging, sustainable effort for 20mins-plus

THRESHOLD RUN A run at about 80% of your max heart rate for no more than 20mins

GETTY IMAGES

IRONMAN 70.3 WEYMOUTH

17 SEPTEMBER 2023 A 1.9km, clear sea swim precedes a 90km rolling-hill bike leg, before a final half-marathon around the town, harbour and historic seafront.

16 IMPETUS PRIVATE EQUITY TRIATHLON (various dists and events). Dorney Lake, Berkshire. *humanrace.co.uk*

17 SEASON FINALE TRIATHLON (various dists and events). Eton College Rowing Centre, Windsor, Berkshire. *dorneylakeseries.co.uk*

IRONMAN 70.3 WEYMOUTH (1.9km S/90km B/ 21.1km R). Weymouth, Dorset. *ironman.com*

NORTH WEST TRIATHLON (various dists). Barony Park & Nantwich Pool, Nantwich, Cheshire. *uktriathlon.co.uk*

DERBY POOL TRIATHLON (400m S/18km B/5km R). Etwall Leisure Centre, Etwall, Derby. *pma-racing.co.uk*

AVIEMORE TRIATHLON (various dists). Loch Morlich, Cairngorns. *durtyevents.com*

23-24 HEVER CASTLE TRIATHLON (INC. 2023 STANDARD AQUATHLON CHAMPS) (various dists and events). Hever, Edenbridge, Kent. *castleraceseries.com*

24 ETON DORNEY TRIATHLON (various dists). Eton College Rowing Centre, Windsor, Berkshire. *votwo.co.uk*

EAST LEAKE 'END OF SEASON' TRIATHLON (400m S/23km B/5km R). East Leake Leisure Centre, Leicestershire. *endorphinsport.com*

30 MUMBLES TRIATHLON (various dists). Mumbles, Swansea, Wales. *mumblestri.com*

OCTOBER

1 THRUXTON MASS ATTACK DUATHLON 🔴 🟢 (various dists). Thruxton Race Circuit, Andover, Hampshire. *challenging.events*

WARWICKSHIRE TRIATHLON (various dists). Stratford Leisure Centre, West Midlands. *uktriathlon.co.uk*

LLANDUDNO TRIATHLON (750m S/17.5km B/5km R or 1.5km S/34.75km B/10km R). Llandudno, Conwy, Wales. *alwaysaimhighevents.com*

OP AUTUMN DUATHLON (various dists). Oulton Park Circuit, Little Budworth, Cheshire. *opevents.co.uk*

8 COWMAN DUATHLON 🔴 (10km R/40km B/ 5km R or 5km R/20km B/5km R). Emberton Country Park, Olney, Buckinghamshire. *bigcowsports.com*

29 MALLORY PARK DUATHLON (various dists). Mallory Race Circuit, Kirkby Mallory, Leicestershire. *activetrainingworld.co.uk*

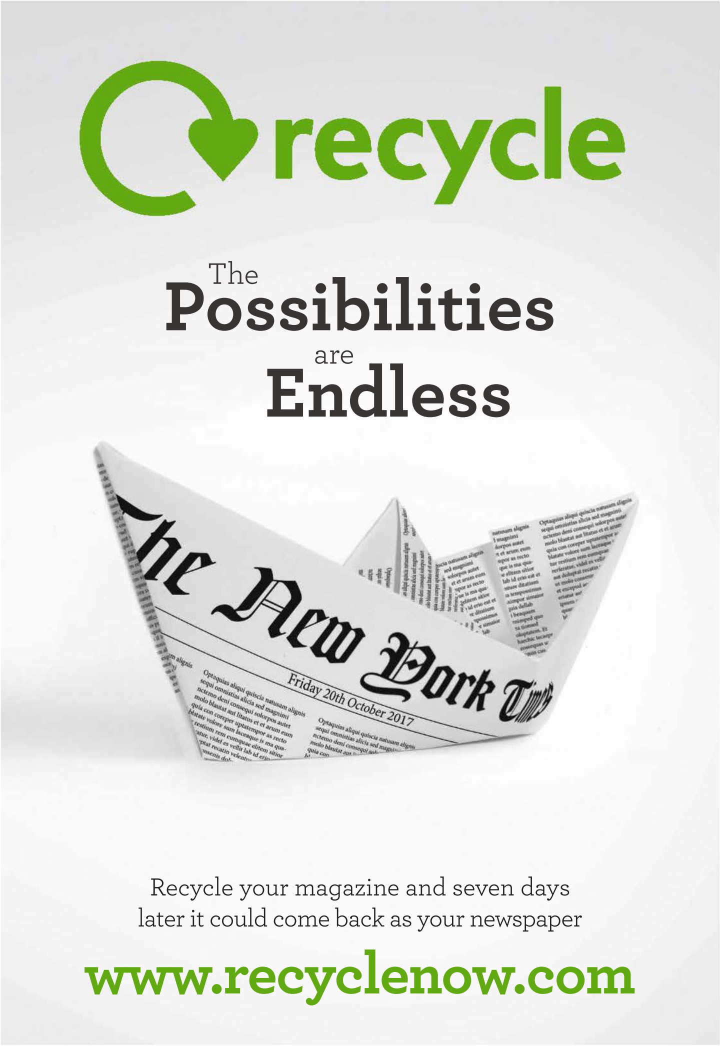
GRAFHAM WATER DUATHLON (INC. BRITISH CHAMPS) (10km R/40km B/5km R). Grafham Water Visitor Centre, Huntingdon, Cambridgeshire. *activetrainingworld.co.uk*

NOVEMBER

5 DEVON DUATHLON 🟢 (5km R/22km B/2.5km R or 10km R/42km B/ 5.8km R). Bicton College, East Budleigh, Devon. *sportivaevents.co.uk*

🟢 **EUROPEAN CHAMPS QUALIFIER** 🔴 **WORLD CHAMPS QUALIFIER**

ARE YOU READY TO TAKE ON ONE OF THE WORLD'S TOUGHEST RACES?
BRUTAL TRIATHLON, DUATHLON & SWIM
SEPTEMBER 9TH 2023 | LLANBERIS, NORTH WALES


recycle
The Possibilities are Endless
The New York Times
Friday 20th October 2017
Recycle your magazine and seven days later it could come back as your newspaper
www.recyclenow.com

Bike Carriers
THE ROOF BOX COMPANY
Expert Advice
Huge Choice
Fast UK Delivery
Full range of roof, rear and tow bar mounting bike carriers available
B&W bike cases and bags
Let us help you find your ideal bike carrier
Web: roofbox.co.uk
Call: 01539 621 884

OFFICIAL PRODUCT

ONLY £10.99 including FREE UK delivery

THE OFFICIAL UK 2023 RACE GUIDE
TOUR DE FRANCE
SOUVENIR EDITION
EVERY TEAM
EVERY STAGE
110th EDITION JULY 1st - 23rd 2023
BASQUE LEGENDS
SOUVENIR EDITION INCLUDES... OFFICIAL TOUR GUIDE, BASQUE LEGENDS MAGAZINE, A2 WALLCHART AND EXCLUSIVE BEER MATS

ON SALE NOW

THE UK'S ONLY OFFICIAL TOUR DE FRANCE RACE GUIDE

Souvenir edition includes: 204-page programme including Tour de France Femmes, A2 double-sided race wallchart, ***Basque Legends*** magazine plus **exclusive beer mats**

WWW.BUYSUBSCRIPTIONS.COM/TOUR23

or call 03330 162 138† and quote 'Tour de France 2023'

Please note the Official UK 2023 Tour De France Race Guide is only available in the UK. †UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) and are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). Outside of free call packages call charges from mobile phones will cost between 3p and 55p per minute. Lines are open Mon to Fri 9am – 5pm. All orders are subject to availability. Please allow up to 21 days for delivery.

220 TRIATHLON

Our Media Ltd
Eagle House, Bristol BS1 4ST
Tel 0117 927 9009
Email 220triathlon@ourmedia.co.uk
Web www.220triathlon.com
twitter.com/220Triathlon
facebook.com/220Triathlon

EDITORIAL

Editor Helen Webster
Deputy Editor Liz Barrett
Art Editor William Linn
Content Editor Rob Slade

ADVERTISING & MARKETING

Group Advertising Manager Gino de Antonis
Advertisement Manager Tomos Whitmarsh-Knight
Classified Sales Exec Elle Butcher
Ad Services Manager Paul Thornton
Ad Coordinator Charles Thurlow
Ad Designer Camilla Owen
Direct Marketing Manager Aimee Rhymer

PRODUCTION

Production Director Sarah Powell
Senior Production Coordinator Ian Wardle
Reprographics Tony Hunt & Chris Sutch

IMMEDIATE MEDIA COMPANY

CEO Andy Marshall
Managing Director Andrew Davies
Brand Lead Rob Brock
Press & Public Relations Emma Cooney
Executive Chairman Tom Bureau

ISSUE 418 CONTRIBUTORS
Steve Ashworth, Matt Baird, Sam Begg, Nick Beer, Andy Blow, Ben Bright, Hannah Broadbridge, Martyn Brunt, Claire Cashmore, James Clear, Lauren Drinkwater, Beth Emery, Kaden Gardener, Jacqui Giulano, Tim Heming, Getty Images, Kristin Jenny, Holly Lawrence, Jess Learmonth, Emma-Kate Lidbury, Katherine Moore, Jeff, Olson, Kate Percy, Steve Sayers, Daniel Seex, Sportograf, Andrew Sheaff, Non Stanford, Sam Voaden, Tom Warry, James Witts

ourmedia
AN IMMEDIATE GROUP COMPANY

LICENSING & SYNDICATION
220 Triathlon is available for international licensing and syndication. For more information, please email Tim Hudson: tim.hudson@immediate.co.uk

220 Triathlon is published 13 times a year by Our Media Ltd (an Immediate Group Company)

Cover image: Yana Audas/ yanaphotography.co.uk

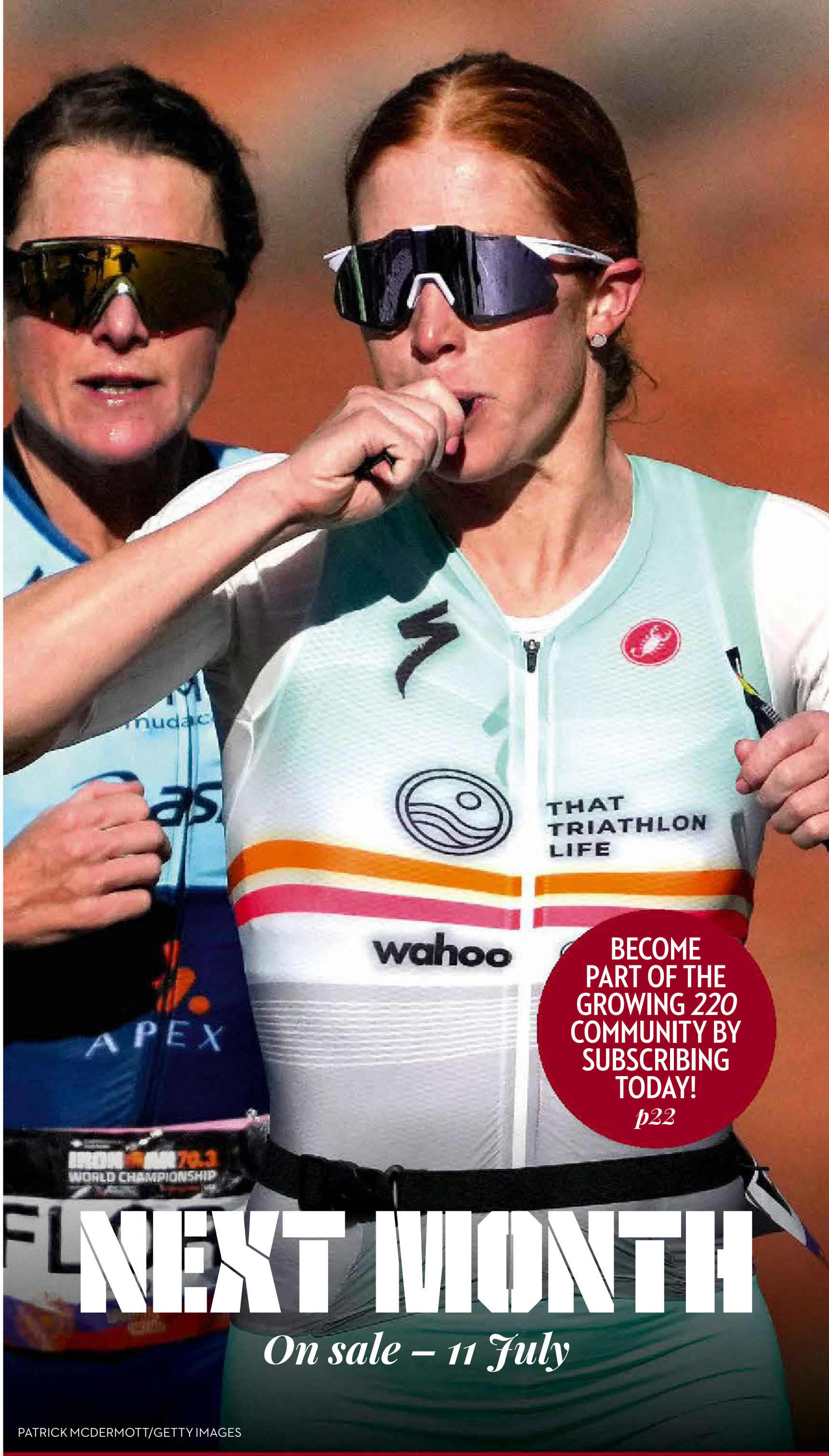
Every care is taken when compiling this magazine, but we accept no liability for mistakes and no responsibility can be taken for the contents of these pages.

Printed in the UK by William Gibbons
Distributed by Frontline, Park Road, Peterborough – 01753 555161

© Our Media Ltd

ISSN: 14791500

We abide by IPSO's rules and regulations. To give feedback about our magazines, please visit immediate.co.uk, email editorialcomplaints@immediate.co.uk or write to Katherine Conlon, Immediate Media Co., Vineyard House, 44 Brook Green, London W6 7BT.



BECOME PART OF THE GROWING *220* COMMUNITY BY SUBSCRIBING TODAY! *p22*

NEXT MONTH

On sale – 11 July

PATRICK MCDERMOTT/GETTY IMAGES

HOW TO FUEL FOR IRONMAN

Ensure your next race goes to plan with our complete guide to fuelling

102 IRONS IN 102 DAYS

We catch up with Sean Conway as he attempts to set a new world record

CARBON RUN SHOES TEST

Is carbon the material to propel you to a new PB? We find out

DANIEL SEEX

NEW TOY TIME

Brunty's finally biting the bullet to make a new-bike purchase, but is overwhelmed at the minefield of machinery in front of him...

WEEKEND WARRIOR

MARTYN BRUNT

Martyn is tri's foremost average athlete and is living proof that hours of training and endless new kit are no substitute for ability.

New bike! Yes, it's that most exciting time in a triathlete's life when I've decided that the moment has come to install some lovely new carbon componentry between my undeserving, celery-like legs.

Unlike many triathletes, I am not a serial new-bike-purchaser. I realise I'm probably out of step with the majority but rather than kick-start my season with a lean, mean, racing machine each spring, I tend to flog my bikes to death over the course of many years, only reluctantly parting with them when I'm starting to repair my repairs, and when the frame consists of more than 60% insulation tape.

A quick look at the current stable of bikes in my garage should give you some idea of what I mean:

- Alan Cycles road bike purchased in 2004, with a one-off sky blue paint job on the frame, done for me by my local bike shop 'Ride' in honour of the mighty Coventry City. We've completed 10 Ironmans together, countless half Irons and standard-distance races, plus the Fred Whitton, the GranFondo Cymru, the Legbreaker, Mont Ventoux, Alpe D'Huez, The Galibier and The Tourmalet. When I eventually croak I'm having it buried with me.

> *"I tend to flog my bikes to death over the course of many years"*

- Bianchi Nirone C2C road bike purchased in 2008 and (mis) used as my winter training bikes for the past 15 years.
- Brompton folding bike, purchased in 2010 and used by me on 1,000 commutes in 1,000 races against Deliveroo couriers. It also graced the Brompton World Champs in 2014 and 2018. I opted for the basic two-speed model, a decision I bitterly regret on any hill steeper than 10%.
- 1980 Pashley Roadster with 3-speed Sturmey Archer gears, purchased in 2019 after being found languishing in a barn, and restored to roadworthiness by me in 2020 just in time to become my lockdown bike of choice. It's a beautiful ride apart.
- A Ridgeback Rapide hybrid, 'acquired' second hand in 2020 and used as my daily bike for work, shopping, going to the pub and visiting my mum. It has the advantage that I can leave it anywhere without worrying about it being nicked, because not only is it worth absolutely nothing, you'd need a 34-inch inside leg just to reach the pedals, and only I know how to get the gears to change.

You'll notice there's no TT bike in that lot. I had a Kuota for many years but sold it when I realised that me sitting up every five minutes and saying 'Oooh my f'ing back' were nullifying its aero advantages.

Despite having been cycling since the days of triathletes in Speedos I've always found buying new bikes a bit of a minefield, because I'm never entirely sure what I want. I'm not someone who immediately goes for the most expensive bike I can afford, partly because in typically British fashion I think if you're going to buy something flash you need to be good enough to use it. And partly because it would detract from the beauty of the bike by having someone who looks like a lego Art Garfunkel perched on top of it.

My initial thought was to finally buy the bike of my dreams, a Colnago Mapei Master. But I honestly don't think I'd ever have the courage to ride it because I'd be terrified of getting a microbe of dirt on it.

I'm also conscious that componentry has moved on since I last dipped my hand in my pocket, and things like Di2 electronic groupsets and disc brakes now come as standard. I've never owned a bike with either of these, and I have a middle-aged man's innate suspicion of any new technology I can't repair with a hammer. So somewhere out there some poor bike-shop assistant is going to be condemned to a long and tedious conversation with a bloke who clearly believes every new innovation is just something else to go expensively wrong.

Anyway, in my next column I'll let you know what I eventually decided on. In the meantime I'll continue to ride round on one of my existing ancient steeds, greeting each successful gear change with mild surprise and every frame creak with a look of worried suspicion.

ZONE3
ZONE3
VANQUISH
VANQUISH

EXPERIENCE THE EXTRAORDINARY

The world's most comfortable and technologically advanced wetsuit

Give yourself the edge in the water with the Vanquish X, featuring exclusive cutting-edge materials to take your performance to the next level.

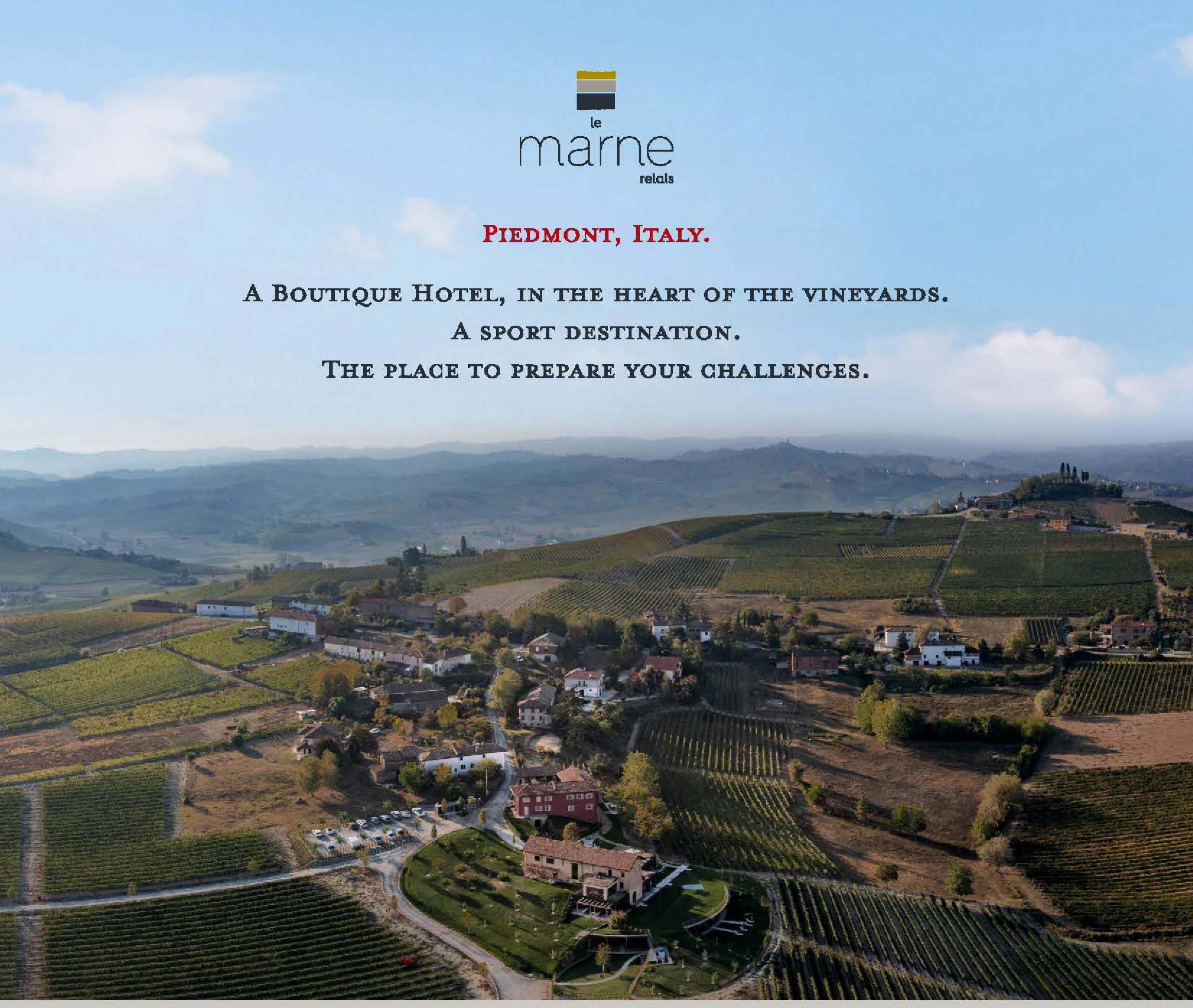
YAMAMOTO BIO RUBBER
Global Exclusive - proven to increase blood flow, reducing lactic acid and fatigue build up in the legs for more power as soon as you exit the water.

TITANIUM ALPHA
40% warmer than regular neoprene, with no negative impact on buoyancy, flexibility, or comfort.

zone3.com

ZONE3

YAMAMOTO
BIORUBBER



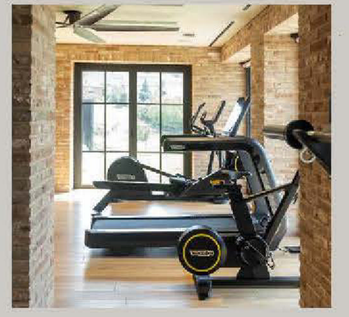
le marne relais

PIEDMONT, ITALY.

A BOUTIQUE HOTEL, IN THE HEART OF THE VINEYARDS.
A SPORT DESTINATION.
THE PLACE TO PREPARE YOUR CHALLENGES.

25 mt.
lap pool

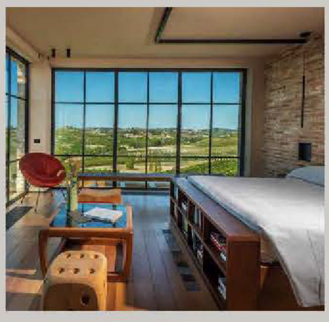
140 mq.
Technogym gym



run & bike
among the vineyards

Mura Mura
award-winning winery

5 rooms dedicated
to poetry



LE MARNE RELAIS.
SPORT & SOUL BOUTIQUE HOTEL.

COSTIGLIOLE D'ASTI, PIEDMONT.
ITALY.

LEMARNERELAIS.IT +39 0141 1852115
INFO@LEMARNERELAIS.IT

8 rooms dedicated
to contemporary art